The Obstetric Gazette.

Vol. VIII. — APRIL, 1885. — No. 4.

Society Reports.

TRANSACTIONS OF THE OBSTETRICAL SOCIETY OF CINCINNATI.

Stated Meeting, March 12, 1885.

The Vice President, Dr. Giles S. Mitchell, in the Chair.

Malarial Complications in the Puerperal State.

Dr. Palmer opened the discussion with the following remarks:

All of the members were doubtless more or less familar with the subject, but it had been presented to his mind more forcibly by an experience in several cases of late.

Very little is said in books and journals about malarial manifestations in pregnancy and the lying-in state. This arises from two causes: first, most of our authorities are foreign and eastern, sections where these diseases are less common; second, because the diseases although present are not always recognized.

It is admitted that pregnancy is a barrier to the reception of the malarial poison, and also its outbreak, although present. But not so, I believe, with the puerperal state. I have no doubt there is a puerperal malarial fever, as Barker has termed it.

The malarial poison may show itself as a regular or irregular intermittent, as a remittent, or a somewhat continued fever. The poison may be received into the system during pregnancy, remain latent for an indefinite period, and then suddenly manifest itself soon after delivery. Or it may be both received and abruptly make its outburst within the lying-in state.

The following cases are cited as examples:

Mrs. ——, æt. about 30, had her fourth confinement, which was very easy and in every way natural. The soft parts were not lacerated. The lying-in state was normal until some 48 hours afterward, when she was seized with a violent chill followed by a high fever, the temperature being 105½°, pulse 130 to 140, with severe pain in the left iliac region. A hypodermic injection of morphia was given, and the salicylate of sodium and a large dose of quinine internally, were administered. Some twelve hours following, the improvement in all the symptoms was very decided. The improvement was daily progressive, until on the eighth day following

the first chill a second one of equal violence, together with the high fever and local pain, occurred. A similar treatment was attended with a corresponding result and progress in the case. But on the eighth day following the second chill, a third occurred. Similar treatment and like result, when quinine was continued in ten grain doses twice daily for some two weeks. Recovery complete.

Mrs. ——, æt. about 40, was delivered of her sixth child. Labor was somewhat tedious; the perineum, which on some previous confinement had been pretty badly torn and I had by an operation repaired a year before, was slightly retorn; one stitch. Lying-in state normal until some 48 or 50 hours after delivery. The reactive fever registered a temperature of 104° F., pulse 110 to 130, no pelvic pain nor abdominal tenderness, lochial flow not checked. A second chill with corresponding high fever in some 45 hours, and a third on the seventh day after the second, followed. The condition of the patient seemed serious after each chill, but was markedly improved in from 12 to 18 hours. Quinine in large doses was the essential feature of the treatment, but salicylate of sodium was given during the febrile movement.

Mrs. ——, æt. 37, was delivered of her second child after a tedious and difficult labor. Forceps were used on account of a pelvic contraction at the outlet. Puerperal state was without any disturbance until a chill and reactive fever on the eighth day. Quinine had been given in moderate doses three times daily, but it was now given in large doses twice daily. There was no further chill.

Other cases could be mentioned, but these will suffice. In my judgment, the puerperal disturbance in these three was malarial. In the first, on account of the pelvic pain, a suspicion was arroused as to the pelvic origin of the chill, and that it was inflammatory in its character. But the rapid and complete abatement of the pain, as well as the other symptoms, to return only after subsequent chills, and a total relief from the pelvic pain again corresponding to the general improvement, indicated that it was resultant upon and not a cause of the chill.

The periodicity of the chills pointed to their nature.

There was nothing in the case to create the least suspicion of septicæmia.

In the second case suspicion was immediately excited that the chill was septic. True, the perineum had been but slightly lacerated, but the uterus had been completely emptied, and the lochia was not offensive. The very nature of the surroundings, the fact of a chill occurring at that time (48 hours after delivery) was calculated to make any physician think most of the possibilities of auto-septic infection. Accordingly, I took with me on my second visit my uterine syringe and tube, expecting to wash out the uterine cavity with an antiseptic lotion, if the symptoms had not abated. The next morning (some 15 hours after the first chill), finding

my patient greatly better, I deemed this precaution unnecessary, and then began to regard the case as one of malarial origin. A repetition of the chill a second time, in about 48 hours after the first, only confirmed this idea. The subsequent developments in the clinical history convinced me as to the correctness of this diagnosis.

The third case, though less perfectly defined, was also probably malarial, as evidenced by the time of the disturbance (eighth day after delivery), and the influence exerted by quinine, and the absence of any pelvic disturbance which might serve as an exciting cause of the chill.

The pregnant and puerperal states, though different from the somatic conditions at other times in health, are normal, physiological ones. In pregnancy there is a state of high nervous and vascular tension; after parturition, in the puerperal state, there is a low nervous and vascular tension. As Barnes has graphically expressed it, the balance of osmosis in the gravid woman is centrifugal, in the puerperal woman it is centripetal. Hence in the former, the system is fortified against the reception of various infectious diseases, as well as the malaria poison; while in the latter, she is especially prone to their influence, manifested in their typical or some modified forms.

The puerperal state, when normal, is, of course, unattended with special symptoms. The most common symptoms indicative of trouble are a chill or chills, the febrile phenomena and local pain or tenderness. The former of the general symptoms may arise from a variety of causes. Their presence to any degree is always a source of uneasiness and anxiety to patient, friends and the physician himself, because their true import can not always be made out, nor their real significance be correctly estimated. The diagnosis, then, of the underlying cause of such symptoms as chills followed by fever, is of the utmost importance, not simply for the sake of accuracy of a diagnosis itself, but for prognosis, and still more for treatment. Difficulties, even great obscurities, may hang around and prevent the clearing up of some cases, especially at first, but usually, it is possible to quickly discriminate.

For the most part, three classes of cases may be considered:

1. Cases in which these symptoms depend upon some local inflammation within the pelvis.

2. Cases dependent upon some poisonous infection, anto-sepsis, exo-sepsis, but not malaria.

3. Cases dependent upon malarial infection.

Attention to the following points will be found useful in diagnosis:

1. *The time of invasion.* — Such symptoms as are referred to comparatively rarely arise during the first 48 hours after delivery. These two days are those of rest. Septic poison rarely shows itself before the lapse of 48 hours after parturition, but does manifest itself generally between

this time and the end of the seventh day, rarely after the end of the first week.

Malarial manifestations may show themselves at any time after parturition, and are as common, perhaps, after the end of the first week as before.

2. *Seeming Local Cause.*—When there is commencing pelvic inflammation the cause of the symptoms is usually evidenced by the local pain and tenderness.

If there is septic infection the soft parts may have been torn, the lochia is offensive and often suppressed, the uterus has not been emptied, and the parturient canal has not been cleansed.

No local cause can be traced when the symptoms are due to malaria.

3. *The mode of manifestation.* — The symptoms of chills and fever, it matters not how violent, how high the temperature or rapid the pulse, or seemingly grave the condition of the patient at the onset, ordinarily, under malarial causation, rapidly improve in from 12 to 24 hours, the remission or intermission becomes decided. This is to the same degree rarely seen in pelvic inflammation and septic infection. The rapid decline in the temperature is not only decided, but is commensurate with the improvement in other symptoms.

In septicæmia, the temperature may rapidly decline while the pulse becomes more frequent, and the general condition of the patient more grave.

In septicæmia, the general nervous sensibility is blunted, in malarial diseases it is usually heightened.

Malarial chills have a certain periodicity. This periodicity may be quotidian, tertian, quartan, etc. The periodical tendency is displayed more or less in the puerperal state, though it sometimes is so modified by it as to become irregular.

At times the malarial complication exhibits itself as a mild but continued fever, with an indefinite duration from one to three weeks.

Quinine is well borne, and, in large doses, exerts its characteristic power.

DISCUSSION.

Dr. Taylor concurred with the essayist in all he had said concerning malaria as a complication of the puerperal state. There are some peculiarities, however, attending it in this connection. The chill is not so frequent nor so regular in its occurrence as in simple malarial fever. It is more obstinate, requiring much larger doses of quinine. As has been remarked, it usually recurs within an interval of two days or more.

The diagnosis of malarial or septic infection depends on one or two points.

The time of the inception of the poison manifested by chill and fever has been mentioned. The state of the secretions is another point. In

septicæmia there is generally a suppression of all the secretions. Where the mammary glands have not been affected, the lochia not offensive, he has generally considered the fever of malarial origin. If there is local inflammation there will be local pain.

The puerperal condition and all that precedes it predisposes to malarial manifestation. If a woman has ever been subjected to its influence it is apt to make itself felt in the lying in state.

Dr. Geo. E. Jones recalled two cases of puerperal fever due to malaria, and thought more of such cases occurred than we put on record. In both of these cases the fever occurred within two days after delivery. One patient had chills preceeding her pregnancy, and had lived in a malarious district. In one of these cases the chill was repeated on the following day, and in the other there was an interval of three days between the attacks. Both were controlled by quinine. He thought a knowledge of the family history tends to relieve the physician's mind of a great deal of anxiety when a puerperal patient is suddenly seized with chill. There had been no suppression of the milk or lochia in those cases.

Dr. Hyndman thought there was no doubt about malaria complicating the puerperal state, while the patient enjoyed a comparative immunity during pregnancy. Persons subjected to malarial iufluence are rendered more liable to a second attack. That there was anything peculiar about this malaria he did not believe. It was irregular in its character, but not more so than in any other debilited state. He had observed in consumptives, and in patients suffering from other wasting diseases, that when attacked with malaria it was usually irregular in its manifestations.

Dr. Wright did not believe there was a distinct puerperal malarial fever, but agreed that malaria often existed as a complication. In cases where there is no septic infection, and where the fever can be traced to no known cause, it is said to be and frequently is due to malaria.

The same treatment answers, whether the case is one of septic infection, pelvic inflammation or malaria.

He would like to ask if any one had observed an effect upon the secretion of the milk from the administration of quinine. He had attended two cases where in each, after the administration of quinine at different times there had followed a suppression of milk.

Dr. Palmer thought this merely a co-incidence.

Dr. Mitchell asked if there were any statistics showing that women in malarious regions are more prone to this form of fever spoken of as malarial complication.

Dr. Wright mentioned that a sister of one of these ladies living in a malarious region was confined at the same time and escaped any trouble, while this lady living in a non-malarious region, was a victim of this complication.

Dr. Giles S. Mitchell said it is a well known fact that pregnancy gives a woman almost absolute immunity against the so-called zymotic diseases. Even women who have so-called chronic malarial poisoning often escape it during this period. He did not believe in a typical form of puerperal malaria, but recognized malaria in the parturient subject as in no respect different from that in the non-parturient. He could also appreciate how any febrile paroxysm would exert an unfavorable influence upon a wounded surface.

From the cases reported, irregularity of form seems the chief characteristic. The chill during one period of the fever returned on the third and again on the fifth day.

Speaker made reference to a class of cases of puerperal fever that are not ushered in by a chill, in which there is high pyrexia, marked tympanites, no tenderness on pressure and absence of pain. Speaker had seen two such cases; both terminated fatally. In both of these cases the lochia was not offensive, nor was there laceration of the perineum. When questioned, the invariable response was that she felt very well.

Speaker was disappointed that the etiology of malaria was not more thoroughly discussed. The researches of Professors Tommasi Crudeli of Rome, and Klebs of Prague, have thrown much light on the intimate nature of malarial poisoning. Their investigations were confined to the atmosphere, soil, and stagnant water of the Agro Romano. They discovered a microscopic fungus consisting of numerous movable shining spores of oval shape. These bacilli, according to these investigators, may always be found in the blood during the period of invasion. Should other observers confirm these conclusions, they will be of the greatest value. When we consider that in many regions of the globe two thirds of the mortality is caused by fevers and their sequelæ, to which this poison gives rise, we we can readily appreciate how everything which relates to it is of the utmost importance to the physician. The ravages of malaria may be demonstrated by the best of all tests, its pathological action. There is what has been recognized as the malarial cachexia. Such individuals seem much older than they are; their skin assumes a brownish tint, the white corpuscles of the blood are greatly increased in number, and there is marked anæmia. The liver is enlarged, but the most characteristic lesion is enlargement of the spleen.

Dr. Cutchllffe observed that in the highly malarious districts of Bengal many of the males were impotent, the females proving fruitful with males from other non-malarious districts. In such localities the children are born not only with the external manifestations, but with the visceral changes of malaria.

Dr. Palmer said there must be some misapprehension as to the meaning of the term "puerperal malarial fever." It is not intended to convey the idea that there is a disease distinct and specific in its cha racter from

all others, as puerperal malarial fever. He wished to make the point that malarial conditions of any type were uncommon in pregnancy, but equally common in the lying-in state. He believed they were more frequently present than is usually supposed.

Again, that the malarial fevers in the puerperal woman, while they partake, to a great extent, of their own peculiar forms of manifestations, also modify and are modified, by the peculiarities of the lying-in woman.

Puerperal Eclampsia.

Dr. Jas. G. Hyndman reported the case of a young married woman, 21 years of age, and in the eighth month of utero-gestation, to whom he was suddenly called, and whom he found in a characteristic puerperal convulsion. Chloroform was used and the convulsion controlled. Upon the supervention of a second convulsion within a half hour, chloroform was again resorted to, and one-half grain of sulphate of morphia injected hypodermically. This, however, did not prevent the occurrence of six convulsions within the next twenty four hours. Two weeks then elapsed before her delivery which was normal, except that it was premature. Venesection was not resorted to because there was no indication for its employment. The woman was of slight frame, delicate, anæmic, and the arteréal tension, even during the attacks, was not high.

This case was reported to the society for the purpose, said the speaker, of getting an opinion from the members as to the cause of these convulsive seizures. They were associated with albuminuria, the previous duration of which was unknown. At the time of this attack the urine removed by catheter was found to contain a large per centage of albumen. For the next twenty-four hours there was partial suppression of the urine which was found to contain a lesser amount of albumen. After this, however, urine was passed in normal amount, and was free from albumen. As a cause of this suppression it was mentioned by the patient's mother, that she had taken a cold bath the morning of her attack and had complained of considerable chilliness during the eight or ten hours which intervened between her bath and the first convulsion.

In this case there was strong predisposing ground-work for convulsive seizures. The lady was of unusually excitable, emotional temperament. Her mother was exceedingly nervous, and her sister an epileptic. On the other hand the occurrence of these outbreaks may be explained and the symptoms accounted for by the intimate compensatory relationship of the skin and kidneys. The sudden arrest of the function of the skin (by the bath previously mentioned) may have caused the acute renal inflammation, partial suppression and convulsions.

This latter seemed to the reporter to be the more satisfactory explanation, as it accounted for the changes in the renal secretion, which the epileptic theory failed to do. The question, however, occurs, whether a

checking however sudden and complete of the functions of the skin, could induce convulsive seizures within so short a period as eight hours.

Dr. Wright thought that both causes contributed to the convulsive seizures. Bright's Disease, as is well known, is frequently induced by cold draughts, producing congestion of the kidneys in pregnant women. It is a question whether, had there been no previous albuminuria, the arrest of the functions of the skin, could have produced such a tension and lesion of the tubules as to cause albuminuria in eight or ten hours. A congestion of the kidneys probably already existed as a primitive cause.

Dr. Jones thought the sudden transference from comfort to cold would produce such results. He recalled a case of an Irish woman whom he had attended in confinement. He had left her well and comfortable, but during his absence, the woman in attendance, contrary to his orders, subjected the patient to a thorough washing. She was seized with convulsions and died. The death of this patient was undoubtedly due to the sudden arrest of the functions of skin, inducing albuminuria and convulsions.

Dr. Taylor remarked that he associated the convulsion with the bath as a result of it, and yet it is possible that it may have been only coincident.

He was called to see a young woman for the first time, who was in the seventh month of her first pregnancy. She had had perfect health, and had been shopping that afternoon. When he arrived at her house she sat up and spoke to him properly, and almost at once began screaming with intense headache, so that no further information could be obtained from her. In the course of a couple of hours ordinary puerperal convulsions were developed, during which the child was born and still lives. There was no œdema in this case, and the patient had seemed perfectly well. Upon examination albumen was found in the urine, but whether it existed before the convulsion, was not able to determine. His treatment when he first saw her, was a large dose of pot. brom., afterwards chloroform inhalations and hypodermic injections of pilocarpine and purgation.

He referred to a translation he had made and published not long since of the treatment of these cases with the hot pack. He had used it in two or three cases when called in consultation, and had found it satisfactory. He doubted if previous neuroses favored puerperal convulsions. Women never previously having any form of convulsion may have a puerperal convulsion, while women subject to epilepsy are no more prone to an attack than other women.

Dr. Palmer thought the bath probably an exciting cause. The period of eight hours is certainly time enough for sufficient changes to take place in the kidney to produce albuminuria. Hot packs were of advantage in precisely the same way as in convulsions due to scarlet fever. The

hypodermic injection of morphia and atropia together with exciting the functions of the skin and intestinal canal, had about done away with the old practice of blood letting.

These patients suffering from chronic Bright's disease rarely have convulsions. Braun mentions only two cases in his statistics.

He did not believe the disease had any pathology. If there is a history at all it is that of neuroses. With the neurotic diathesis a kidney lesion or any other lesion may excite convulsions.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Meeting of Jan. 25th, 1885.

DR. MCPHEETERS, President, in the Chair.

DERMOID CYSTS.

Dr. Prewitt read the following paper on Dermoid Cysts of the Ovary.

The origin of Dermoid cysts forms a perplexing problem in pathology. No theory has yet been broached that is wholly satisfactory. There can be little doubt that they are co-existent with the life of the patient.

Several different hypotheses have been suggested to explain the origin of these curious aberrations.

Cruveilhier proposed two theories:

1. That dermoid cysts are the remains of an extra-uterine ovarian conception.

2. That they are developed in consequence of a *fetus in fetu* by inclusion.

A third theory has been advanced, viz., that dermoid cysts are due to a hyperechetic development of an ovum in the direction of parthenogenesis.

Yet another theory may be offered, that in the process of embryonic development an inclusion of a bit of the external or upper germinal layer takes place and, blended with the middle layer from which bone muscle and nerve are formed and endowed with the active formative force which marks this period, gives rise by a process of differentiation to any or all the products which normally may develop from the layers.

So far as the first of these theories is concerned, it was according to Dr. Lee, universally accepted as the correct one until the time of Dr. Baillie. Now it may be said there is no one who advocates it. So palpable are the arguments against it that it seems needless to discuss them. It is sufficient to say that these cysts have been found in young children, in virgins, and in males, rendering the theory of impregnation wholly untenable.

Their origin by inclusion has been the most popular, as it is the most plausible theory advanced by embryologists in explanation of the phenomena. This supports the attempt upon the part of nature to form two fetuses at the time of the impregnation of the mother of the cyst-bearing patient, in one of which the growth was arrested, and in the other proceeded to full development.

This could only be possible in those cases of transformation where fissiparation of a single ovum is the mode of development. But, as pointed out by Mr. Tait, it is a law of teratology that any union of fetuses under such circumstances, whether blighted or fully developed is formed by attachment of symmetrical and homologous structures, as in case of Siamese twins and the Millie-Christine monstrosities.

So far nothing has been observed in any case that approached a compliance with this law.

Again, there is nothing in teratology to warrant the conclusion that such union or blending would take place in the ovary more frequently than elsewhere. Yet statistics show that dermoid cysts are found in the ovaries in an immensely large proportion of cases (128 in 180, Lebert). Such statistics alone render the doctrine of inclusive *fetus in fetu* infinitely improbable. This doctrine is supported by Velpeau, Gross, etc.

The third hypothesis is advocated by Mr. Tait in his work upon "Diseases of Women." It assumes that the true solution of the phenomena of ovarian tumors which contain such structures as teeth, bones, cartilage, striped muscular fibre, brain and nerve tissue, "can only be found in a hyperechetic development of an ovum, a cell which has in it the power of formative origin of all these structures."

It may be supposed that the ovum contains the origin buds of the various tissues of the body which only need the fusion of the male germ to stimulate into activity the formative force which determines their development into definite organs with definite functions. Lacking this stimulus the ovum may take on, nevertheless, a hyperechetic action, independent of impregnation, which results in development of rudimentary structures.

In support of this theory certain facts in regard to the partial development of the unimpregnated ova of frogs have been brought forward, as showing the possibility of such an occurrence in vertebrates, while the development of certain insects, especially the aphides, through successive generations, without any copulation, and, indeed, according to Huxley, without any generative system is pointed to as the type of which these cysts are but the abortive imitations on the part of the human ovary. This process Prof. Owen called parthenogenesis, holding that the male sexual influence was transmitted from one generation to another. The analogy, however, does not hold good, since M. Balbiani, a distinguished naturalist, has stated as the result of his investigations these sexual or

virginal aphides are true hermaphrodites. With this banishes all support from an analogy in this direction.

As essential to this theory of imperfect parthenogenesis it must be shown that these tumors are found only in the ovary or in situations where an ovum could have readily lodged after its displacement from its bed.

Recognizing this fact, Mr. Tait has drawn a distinction between those cysts found in other parts of the body, especially about the orbit, which have a somewhat similar structure and the dermoid cysts of the ovary. He has not been able to find any mention of these cysts in other parts of the body, containing anything but purely epithelial products, such as hair, dead epithelial cells and fat," while in ovarian cysts "the variety of products is so great as to put all analogy between them and inclusive cysts out of the possibilities."

Admitting it as true that these multiform products are found only in the ovarian dermoid cyst, it is nevertheless true that ovarian cysts are also found which contain only the epithelial products which are found in analogous cysts in other regions, and which are absolutely similar in every respect to the latter. Must a different genesis be assumed for these?

But a fatal defect in the theory is the fact that tumors containing precisely the same rudimentary structures, bone, teeth, etc., have been found in other localities, so widely separated from the ovaries as to preclude the possibility of their originating from a displaced ovum.

I well remember hearing the late Prof. Chas. A. Pope of this city, speak with enthusiasm of an admirable lecture by Velpeau upon the subject of tumors, in view of an abnormal tumor of the scrotum which had greatly perplexed his confreres and which by exclusion he pronounced a tumor by inclusion, or, as he dramatically calls it, the patient's brother, "the product of conception."

Velpeau made a somewhat sensational report of the case to the Academie de Sciences. He evidently regarded it as a living fetus fixed in the testicle of his patient where it seemed to have been developed and to have lived since his birth. (*Am. Jour. Med. Science*, August, 1840, page 440).

The testicle was not involved. His vivid imagination endowed it with rudimentary eyes, and in the midst of the various elements composing it he found "numerous portions of the skeleton profusely organized."

Still another case (Gordon's) is cited of a dermoid cyst in the mediastinum containing not only hair, but bones and teeth.

Another theory implying inclusion of a different character is probably the true explanation of these cysts, although it must be said that it is not free from difficulties and is open to serious objections.

It will be remembered that at a very early period of development the blastoderm separates into three germinal layers, each of which is responsible for the development of certain structures of the body.

From the outer or upper layer, the epiblast, is developed the integument with its appendages, hairs, glands, nails, etc. From this layer, too, is developed the central nervous system.

From the middle, the mesoblast, are developed the bones, muscles, heart, blood-vessels, etc., and the reproductive organs.

From the internal layer, the hypoblast, are developed the epithelial structures.

It is generally conceded that the simple dermoid cysts about the orbit, in the lines of the branchial clefts, and about the lines of union of the germinal layers are simply the result of the inclusion of a portion of the epiblast which, continuing to develop in its imprisoned state, forms a cyst containing integumental products. Why should we hesitate to apply the same explanation to the dermoid cysts of the ovary and elsewhere, which also contain elements from the epiblast but contain, too, those from the mesoblast?

If a portion of the epiblast be mingled by inclusion with the mesoblast it seems to me to require no great stretch of the imagination to conceive it possible for any or all of the structures of these layers to be reproduced in the growth which results.

Against this theory the most serious objection is the fact that an immense proportion of these cysts are found in the ovary (129 out of 188). A large proportion of the remainder are found in the testicles (or scrotum), the remaining few only being found in various positions about the body. It is difficult, perhaps impossible, to offer any explanation of this fact.

The following cases, met with at intervals of seven years, possess, it is thought, features of sufficient interest to justify reporting them.

Case I. Barbara B—, aged 37, native of Prussia, menstruated first at 16, never any pain at menstrual periods, but they were irregular.

When about 18 years of age menstruation stopped for twelve months, and again in her twentieth year for three or four months. When 21 years of age, she was delivered at full term of a healthy child. Never pregnant but once.

In April, 1876, she had an attack of vomiting and pain in the bowels, but no marked symptoms of obstruction. Bowels responded promptly to purgatives. Had been constipated generally, but bowels readily moved by purgatives.

She entered Convent of the Good Sheperd June, 1876. For first week after admission bowels were constipated, but were relieved by medicines administered by the sisters.

On Friday, September 22, 1876, did not feel well, and on Sunday following was taken sick while in the chapel, and was excused. She suffered with nausea, rushing of blood to the head and trembling. Later in the day she had pain in the left side in the region of the false ribs. A dose of oil administered next day was followed by vomiting, but the bowels moved two or three times, seemingly from action of the oil. That afternoon, Monday, September 25, pain commenced in the left iliac and femoral region and increased in severity until Wednesday afternoon, when they became so severe as to cause her to scream out and turn pale. The pains were paroxysmal and had become more central. Mustard and hot fomentations gave some relief. After this, pain shifted more to right iliac region. Vomiting occurred at intervals, and there was nausea when nothing had been taken to excite it. A dose of oil administered Wednesday afternoon was rejected. Pain continued all day Thursday, and Dr. C. E. Briggs saw her on Friday, Sept. 29. Bowels had not been moved since Monday and there was still a good deal of disturbance, pain and vomiting with some tympanites though not marked. Tongue coated and breath fetid.

On Saturday (30) I saw her with Dr. Briggs.

Percussion and palpation over the abdomen revealed great tenderness and dullness in right iliac region, with fluctuation over a part of the swelling.

Dr. B. suggested fluid accumulation above the point of obstruction.

On examination per vaginam and rectum could detect fullness in the right pelvic region and a hard, resisting band or mass extending across the upper and back part of pelvis, irregular and lobulated, too high to determine its character, but reaching across to left side of pelvis in region of sigmoid flexure. Patient still vomiting greenish bile.

We were in great doubt as to the cause of the symptoms of obstruction. Was it a tumor pressing upon the bowel, or was it an abscess? There was no history of a tumor, and none had ever been suspected. Notes are missing as to the length of time this complete obstruction existed.

About October 15, the tumor was aspirated and a small quantity of thick dirty grey looking fluid was withdrawn which was submitted to examination by a microscopist, who pronounced it old inspissated pus. October 19, the tumor was again aspirated and about four ounces of fatty matter was drawn off. A hair was found in the cannula and at once determined a diagnosis of dermoid cyst of the ovary.

We drew out considerable hair, but as it continued to come, it was feared it would lead to escape of fluid into abdominal cavity. A probe was used to push any hair in the cannula back into the sac, but when the cannula was withdrawn a single hair was found to remain in its track. It was decided to await results.

Nov. 3. Pain in the abdomen with considerable tympanites. Pulse 114, temperature 101.5°.

Nov. 4–5. Condition and temperature and pulse about the same.

Nov. 6, (Monday). No pain since Saturday, 11; pulse 100 still considerable tympanites. Tongue clearing at tip, no appetite.

Nov. 11. Had pain yesterday with nausea and vomiting. Pulse 120, temperature 103.5°. Enema brought away very little fecal matter.

No. 15. Tumor projects more prominently than at any previous time and is tympanitic at apex, temperature 101.5°. Bowels freely moved yesterday and evidently cleared of any fecal accumulation or obstruction.

Nov. 18, 9 a. m. Temperature 102°. Tumor tympanitic. Decided to operate by incision over point of puncture, from which hair still protruded, and to be guided by conditions found as to further steps. Accordingly at 10 a. m., assisted by Drs. Briggs, Hodgen, Mudd and Gehrung, made an incision over tumor and evacuated a large quantity of fatty and purulent matter, and removed a large ball of reddish hair. The cyst seemed adherent to walls of abdomen. Introduced a tent wet with carbolic acid.

Nov. 19. Patient rested well last night. Pulse 104. Temperature 100.1°.

Nov. 20. Temperature 101.6°. Pulse 112. Dark, bloody discharge from cyst. 6 p. m. Pulse had risen to 118, and temperature 103.2°.

Nov. 22. Pulse 110. Temperature 101°. Condition good, discharge less, still colored red.

Nov. 30. Pulse has been for some days 96 to 100. Discharge considerable and offensive, appetite fair.

Dec. 8. Pulse 88. Severe pain in abdomen last evening with vomiting; surface cold and clammy. Relieved by hypodermic injection of morphine (¼ gr). This morning temperature 98.5°.

Dec. 9, 10 a. m. Temperature 99.5°. Pulse 100; appetite poor, nausea during day yesterday, following use of morphine day before.

Dec. 10. Pulse 95. Bowels not moved for two or three days, although enemata have been used. Ordered dose of oil. After washing out the cyst, pressure over the abdomen forced out quite a quantity of pus; evidently cyst is not completely cleared out by the washing; patient instructed to lie upon her face.

Dec. 14. Pulse 100, temperature 100.5°.

Dec. 15. Pulse 110. Temperature 100.2°. Nurse stated that she had fever last evening, and her bowels have been running off some this morning.

Dec. 16. Pulse 92. Temperature 100.1°. Washed out more than usual quantity of pus this morning with a small bunch of hair.

Dec. 50. Pulse 80. Appetite good. Gets up every day for a short time. Pus healthier and less odor, bowels regular. During the next two months the case progressed without any marked changes. At one time a large slough was removed that seemed as though it might have formed a considerable part of the lining membrane of the cyst, and a tooth came away with it.

On Wednesday, March 28, the drainage tube came out and the nurse was unable to replace it. In attempting to wash out the sac great pain was caused the patient, with a feeling as though something had given way; a good deal of bleeding followed.

March 29. Pain has continued since yesterday; temperature 101.5.

March 30. Patient still has pain with general tenderness over abdomen and tympanites increased since yesterday. Pulse 108. Temperature 101.5°. Tongue coated.

℞ Hydrarg. chl. mit. - - - - - gr. ½
Morph. sulph. - - - - - - gr. ½

M. S. To be taken every three hours.

March 31. Pulse 116, temperature 101.6°. Still has pain; tympanites something less, but still considerable. No action from bowels.

April 1. Patient much worse. Temperature 101°, pulse 140; small, easily obliterated; face pinched.

April 2. Pulse 140 and weaker, skin clammy, face haggard, no delirium; no vomiting, but tendency to spit up contents of stomach; condition desperate; ordered quinine and morphia to be continued and hot hop fomentations over abdomen. 8 p. m. Pulse 140; possibly a little better tone. Facial expression slightly improved. Has vomited a little; continue quinine and whisky.

April 3. Wonderfully improved; pulse 116 and good volume; skin warm; face better; tympanites rather less; vomited bile during night. Has a desire to go to stool; wants coffee and bread. 6 p. m., pulse 100, temperature 101.1°; several free passages from bowels; tympanites greatly diminished.

April 4. Pulse 100. Temperature 100.6°. Some hardness can be detected in abdomen ranging from an inch to right of median line to left iliac region and extending to near umbilicus. Percussion over it elicits deep resonance. Menstrual flow has returned.

April 5. Pulse 100. Temperature 100.4°; bowels running off since yesterday, accompanied by a good deal of pain; passages thin, dark and offensive, a good deal of gas escaping with them. Had a good deal of sick stomach and vomited once this morning. Cheeks flushed; hypodermic injections of morphine. 6 p. m., temperature 102°. Decided fluctuation in left iliac region over swelling; diarrhœa checked; no vomiting since morning.

April 9. Marked fluctuation above Poupart's ligament on left side. Great tenderness in Douglas's *cul de sac* but no fluctuation above roof of vagina. Pulse 100. Temperature 100°. Decided to make exploratory incision over seat of fluctuation; accordingly, assisted by Dr. Banduy, I put her under the influence of ether and made an incision, commencing an inch below and an inch and a half to the inner side of the anterior superior spinous process of left side, extending downwards and onwards to within two inches of linea alba. Reaching combined tendon of oblique muscles, a small opening was made, exposing peritoneum. This could be seen looking healthy, but no indication of pus beneath. The peritoneum was cautiously detached downwards in the hope of reaching the pus, but it failed. Fluctuation could still be distinguished, and on pressure a yellowish fluid welled under the portion of peritoneum which was exposed. A little of this was withdrawn with a hypodermic syringe, and found to be serum or sero-purulent.

Decided to close up wound and await results. Is it serum enclosed in a sac of plastic lymph, or is there still pus near? The tendency to hectic fever, the pain and circumscribed fluctuation would indicate pus somewhere. 5 p. m., temperature 102°. Has had a good deal of pain coming on in paroxysms; quite severe at times causing her to scream out; some nausea but no vomiting. Gave hypodermic injection of morphine, one-half grain.

April 10. 10 a. m., pulse 104. Temperature 101.5°; slept well; looks better: old openings discharging healthy pus quite freely.

April 11. Pulse 88. Temperature 99°; rested well; bowels moved three times spontaneously; tongue clearing; exploratory incision healing by first intention; pulse and temperature and general condition continued much the same for several days.

April 21. Discharge from original opening still profuse; outline of swelling can be felt, one and a half to two inches below umbilicus, extending across to near left ilium. Fluctuation still detected in left iliac region under the site of exploratory incision made April 9; pulse 108, temperature 101° F.

April 23. Pulse 100. Temperature 100.2°; had some pain and vomiting yesterday, relieved by morphine; has vaginal bloody discharge, again much too soon for menstrual period. Directed nurse to examine for pus in vaginal and rectal discharges.

Tumor seemingly rises higher in abdomen, reaching nearly to umbilicus, but the increase seems gaseous. It is rounded, elastic, tympanitic; orignal opening discharging freely.

April 24. Pulse 90. Temperature 99°; swelling in lower left side of abdomen less; the tympanitic swelling over tumor disappeared. Some bloody, purulent discharges yesterday from vagina; nausea and vomiting again yesterday.

May 17. Patient is up and about, very slight discharge from original opening; is getting fat; no albumen in urine. Patient continued to improve, and is now, January, 1885, still living and in good health.

Case II.—Mrs. W. C. T., aged 33, had an attack of uterine colic from use of douche in March, 1883. On examining over abdomen afterwards to ascertain if any tenderness existed, I discovered what I supposed to be a cyst of the left ovary, to which I called her attention and proposed at a future time to investigate more thoroughly. This was not done, however. On Tuesday, Nov. 13, I was called to see her and found her suffering with excessive nausea and vomiting, and learned that she was pregnant two months, and that she had been suffering greatly for a month with sick stomach. She was in bed and unable to raise her head off the pillow. The vomiting had been very severe, and retching and straining so great that she said it seemed that everything would be forced out of her. I prescribed cerium oxalate in gr. viii doses, which seemed to control the vomiting very much, although she continued to have at times retching spells.

On Friday, November 16, I was called and found there had been some flooding with pain. I gave a hypodermic injection of morphine which seemed to check the threatened miscarriage and relieved the vomiting.

On Saturday she was more comfortable, but I had her use laudanum enemata occasionally. On Sunday, 18, there was again some flow of blood and some pain relieved by anodynes. Monday and Tuesday she was quite comfortable. On Wednesday 21, I was hastily summoned and found her suffering violent pain in pelvic region which had come on suddenly. It was clearly not the pain of a threatened miscarriage; and I felt confident that something had occurred in the nature of an extravasation; at least some accident within the abdominal cavity that had given rise to the severe symptoms. Hypodermic injections controlled the suffering, but only while under the influence.

Within two or three days, sharp, regularly recurring pains set in and a miscarriage took place, of a fetus of about two months, without seeming in any way to influence the situation otherwise.

Pain continued accompanied by vomiting and tendency to tympanites. On the right side in about the position of the *caput coli* and ascending colon a tumor could be felt that was evidently not inflammatory, nor was it an impacted colon. I then recalled the existence of a tumor in the preceding March. But that was in the left iliac region; this was in the right.

Dr. Maughs saw the case with me and agreed with me that something had happened in connection with the tumor, but we could not say what. The symptoms steadily progressed for the worse; vomiting became more

persistent: tympanites more marked, and she sank and died on the evening of Nov. 27. Dr. Brokaw, who also saw the case the last two or three days of her life, concurred in the view that some accident had occurred in connection with the tumor. We discussed the propriety of abdominal section, but the uncertainty and obscurity connected with it deterred us from this course.

At the autopsy, 36 hours after death, at which Dr. G. M. B. Maughs and Dr. F. V. L. Brokaw and Mr. V. L. Brokaw, assisted, we found a dermoid cyst as large as a small cocoanut lying in the right iliac region springing from the right ovary. The pedicle was twisted upon itself nearly twice around—the twist occurring from left to right forwards. A portion of the ileum was carried around with it and was partially strangulated, though not acutely. The Fallopian tube was involved in the twist, and its fimbriated extremity was deeply congested and a slight amount of blood and mucus seemed to have exuded from it. The tumor itself was dark and deeply congested. There was some peritoneal inflammation, but it was not extensive.

Rotation of ovarian tumors upon these pedicles, as occurred in my second case, is not a very rare occurrence. Rokitansky, according to Spencer Wells, was the first to call attention to the accident in a paper published in 1865, on "The strangulation of Ovarian Tumors by Rotation." But cases had been reported by several physicians before that time, especially Klob, Van Buren (1850) and Crane (1861). (Peaslee, Ovarian Tumors p. 80.)

This accident is by no means peculiar to dermoid cysts, but it would seem quite as frequent in this class of tumors as in others, if not more so in proportion to their frequency.

Mr. J. Knowsley Thornton in the *Obstetrical Journal* for Feb., 1878 reports two cases of rotation of ovarian tumors and discusses the difficulties in diagnosis which such a complication presented. In neither of the cases reported was a definite diagnosis made until an explorative incision had been made, and the true character of the tumor revealed. In both cases he had the benefit of the experience of that veteran and pioneer in ovariotomy, Sir Spencer Wells, who, like himself, regarded the diagnosis as doubtful.

The pain at the period of menstruation, due to the partial strangulation and congestion of the tumor, the shortening of the pedicle from the twist, and the consequent bringing of the tumor in closer proximity to the uterus, rendered a diagnosis very difficult. The doubt would apply both as to the character of the tumor and the occurrence of the accident. The difficulties in the way of accurate diagnosis would be all the greater when the tumor is a dermoid cyst. The great solidity of the tumor would tend to mislead the surgeon when he found the tumor, from the shortness of the pedicle, lying in close proximity to the uterus. It might

be an exception to this when the irregularities of pieces of bone might suggest the character of the tumor.

It can be readily understood how difficult, if not impossible, would be the diagnosis of such an accident where the previous existence of a tumor was unknown, and the case was complicated with pregnancy and impending abortion.

DISCUSSION.

Dr. Prewitt.—I remember hearing the late Professor Charles A. Pope of this city speak of a case of Valpeau's which had greatly perplexed all who had seen it, concerning which Valpeau had made the somewhat sensational report to the Academy of Sciences that the patient and the tumor were the effects of the same conception. The report of this case will be found in the *American Journal of the Medical Sciences* for 1840, at page 40.

Dr. Gregory.— We have at the St Louis Medical College a cast of this scrotal tumor together with the testicle of which Valpeau spoke, and which Dr. Pope left us. It appears that in the case which Dr. Prewitt reports there was hair present, which enabled him to decide as to its character. I see that Dr. Samuel W. Gross, in a pamphlet which was sent to me some time ago, says that there was a hair sticking out of the cyst that Valpeau diagnosed. I had always supposed that in this dermoid cyst of Valpeau there was no such aid to diagnosis. Valpeau was undoubtedly a very wonderful man, but I do not see how he could have known as much about dermoid cysts as the profession of this day. He must necessarily have studied the subject under very great difficulties, as its literature was comparatively sparse, so we must ascribe this diagnosis of Valpeau's to the unusual learning of the man. It is an accepted opinion that Valpeau was probably a man of greater learning than any other which the profession has produced. It appears that Valpeau kept the patient under observation for many months, and every man of reputation who came to his clinic was requested to examine it and give his opinion. These opinions were all recorded, and Valpeau having in the meantime studied them carefully, concluded that the case could not accord with any of them, that it must be something which nobody had guessed, and he then concluded that it must be a dermoid cyst. Everybody was looking forward to the time when he would give his opinion, and when he did so it was to the effect that the tumor was the patient's brother in his testicle. Dissection proved that there was really a skeleton there; there were bones and teeth and a great variety of material that looked very much like what a fetus could be constructed from. This was the story that Dr. Pope used to detail. For a long time after hearing this story I considered it as the most wonderful diagnosis that had ever been accomplished by any human mind, and now I am satisfied that Valpeau knew more about dermoid cysts than any living man of that time.

Dr. Papin.—I remember hearing Valpeau detail the case in 1848, and a very interesting lecture he made of it. The old gentleman would sometimes show his genius and rise above everything else. He was a very remarkable man, although personally unpopular. He was rude to his students and sometimes to his patients, but notwithstanding his origin his genius would soar. In this lecture he was particularly interesting. I suppose he presented it from year to year to his class.

Dr. Boisliniere. — He belonged to that class of men who are great in everything they attempt. He was a brilliant obstetrician; he wrote the ablest work on midwifery of that time.

Dr. Prewitt.—I do not think it at all surprising that Velpeau made the diagnosis; it is one of the simplest things in the world. There was a hair sticking out of the cyst. The subject at that time, of course, was not as well understood as now, and he made a very startling story of it because he represented that there was a tumor in the scrotum which had been there from birth. It had grown more or less; there was a pretty well defined line between the integument of the tumor and the remaining integument, and the integument of the tumor could be cut into without sensation to the patient, and was nevertheless living tissue. It bled just like any other punctured tissue, and healed up just like any other. Velpeau, however, regarded this tumor as a distinct individual, simply drawing its sustenance from the patient, and as the product of conception. He supposed it had its own nervous centres, apart from those of the patient. He imagined he saw something like a rudimentary heart; he imagined these bones were parts of a skeleton. All this was very largely imaginative, I am sure. I do not think anybody has ever seen anything that at all resembled the outline of a skeleton in these tumors, except bones which have looked a little like jaw bones with teeth in them, and detached bones of different shapes, all of which have been found and I have seen. I had a case at the city Hospital of a large dermoid cyst containing bones, but of no definite shape, they were irregular bones of various shapes. If my imagination had been vivid I might have succeeded in comparing some of them to a vertebra and some flat bone to another part of the skeleton, and so regarded them as portions of a skeleton, but there is no reason to suppose that this is so, because they are irregularly developed upon the wall of the tumor.

Dr. McPheeters.—Is the size of this tumor of the scrotum given?

Dr. Prewitt.—It was not very large.

Dr. Gregory.—I no not mean to say that there would be anything wonderful in diagnosing such a tumor at this day, but it was wonderful in Velpeau's time; there would certainly be no difficulty in diagnosing it now.

Dr. Papin. — The history that Dr. Pope gave of Velpeau's case was that Velpeau stated he saw hair coming out of a fistulous opening, and it was this circumstance that gave him a clue to the diagnosis.

Dr. Prewitt.—Lawson Tait alludes to those cysts which contain some integumentary products, whereas dermoid cysts, according to his theory, contain multiform products; there is a difference in the genus. If these tumors were due to enucleation of the external embryonal layer, why do they so frequently occur in the ovary? An enormous majority of cases occur in this site, I think 118 out of 128 cases have been situated in the ovary. There must be some reason why the ovaries are so much more frequently affected by these tumors than any other part of the body. They are also found frequently in the testicles.

D. McPheeters. — What proportion of these tumors are found in females?

Dr. Prewitt.—I think there are about three in the female to two in the male; more than that probably.

Dr. Ford. — There is one consideration which I think it might be well to notice, of an etiological character. It is a very well recognized fact in physiology that there is a fundamental similarity between the processes of reproduction of lost parts and the normal developmental process. In the lower forms of life, and in the early fetal life, an organ may be reproduced, fingers or toes will be formed anew. The physiological idea seems to be that a certain amount of developmental power belongs to the germ, and if this is not entirely expended in growth a portion of it remains latent, as in the female, and that accounts for her smaller size. The portion of formative force held in reserve by the female is expended in later life by the generative organs, and that leads us to think that there resides in the generative organs, both of the male and female a certain remaining formative power, so that it is not surprising that we should find these erratic productions existing in the ovaries and in the testicle, but especially in the ovaries, where there remains the greatest portion of latent developmental power. This doctrine is well expiated on by Carpenter.

Another very interesting point in the same connection which it is well to notice, is that the only instance in the human economy in which we have a continual reproduction of lost parts in their entirety is in the female. As we know, this takes place in menstruation and in the fall of the decidua at childbirth. The utricular glands of the uterus are reproduced after being almost entirely destroyed. We must therefore assume that there is a latent power of reproduction as a cause of the appearance of these dermoid cysts quite independently of any vicious development of the different layers of the germinal membrane.

Dr. Prewitt.—If I understand Dr. Ford's remarks correctly, he refers to the position held by some that there is a developmental power in the ovary of the female independent of the stimulus of impregnation. Tait puts forward a similar explanation of these tumors and cites instances in the frog and especially in insects, where the offspring inherit the effects of the impregnation of the parent, where eggs are developed without direct

impregnation – that is, undergoing partial development without the stimulus of normal impregnation. In fact, it would seem to me that it would certainly be the most satisfactory of all explanations that the ovum of the female possesses in itself a formative power, and in exceptional cases may originate these imperfect structures. I think that would be the most plausible of all theories if dermoid cysts were confined to the ovaries, but, as we know, they occur elsewhere.

Dr. Englemann.—Dr. Ford's theory harmonizes very well with the one at present generally accepted, that is, that these tumors develop from stray cells of the outer and middle layers, and the fact that the development is observed most commonly in connection with the ovaries is accounted for by that peculiar vitality, the developmental power, the reserve force stored in the reproductive organs to a greater degree in the female, but it is also a fact true in regard to the male organ, formed in the center of the abdominal cavity, the testicle.

Dr. Ford. — An extraordinary vitality and reproductive power is possessed by the organs of reproduction in both sexes, but especially in the female. With her a large share of germinal force is reserved for the generative functions. To these functions she sacrifices her height, her intelligence, and strength. Much of her primary endowment seems to be reserved in the generative organs; and when these lose their facilities the individual reverts to the male type in many respects as age advances.

Cocaine in Gynecological Practice.

Dr Englemann—I wish to bring before you a subject which has greatly interested me, and which has created considerable excitement of late, that I may obtain the experience of gentlemen here, and this is the use of cocaine in gynecological practice. I am anxious to hear what success the gentlemen may have had with the new remedy. I have used the hydrochlorate of cocaine quite freely, but within a short time only, as I did not at first resort to it, presuming that it would act only on very delicate tissues like the conjunctiva, but not upon heavier mucous membranes, but to my great delight I have had the most excellent results from its use. I have found it serviceable in a variety of cases, and I would like to share the experience of those present in order that I may arrive at some conclusion as to how and where it is to be used.

I have found it most valuable and reliable in reducing the sensibility of the parts in order to admit of the use of instruments. I have found it serviceable in reducing the spasmodic contraction in vaginismus and the pain in some forms of dysmenorrhœa. I have used it in reducing the pain of coxalgia and the itching in pruritus vulvæ.

I have had two patients who have been under treatment almost constantly for seventeen and twenty years respectively. These have been sufferers from chronic metritis and endometritis, and sensitiveness of the

ovary and rectum; they are patients who have undergone all possible treatments that could be resorted to. I tried the hydrochlorate of cocaine, and will say that it did what nothing else has ever done. One patient has been in the hands of a good many able gentlemen in this city and elsewhere, treated last by Dr. Maughs and Dr. Gehrung, she tells me that they were never able to use the speculum or make an ordinary application without placing her under the influence of chloroform or morphine. I painted the vulva with a little mop of cotton saturated with perhaps four or five drops of a four per cent solution, put a little pledget of cotton saturated with the same into the vulva and then pushed it lightly into the vagina, and within two minutes, I presume not more than two minutes later, I was enabled to introduce the speculum without exciting any reflex contraction of any muscles; in fact, the patient experienced no discomfort even. I believe she felt the instrument, but it did not give the slightest annoyance.

Formerly I was obliged to use the speculum with the greatest care, and after each treatment the scene was a most annoying one; she was in a state of hysterical excitement, talking and gesticulating wildly, and if the operation were undertaken in my office she would leave the operating table and sink upon the sofa in a dazed state. Then I was obliged to lead her into another room and let her lie down for several hours. I did not dare or even attempt to enter the uterine cavity at all. I made applications only to vagina and cervix. After applying the cocaine this same patient did not even feel the use of the speculum or the application and was hardly conscious of its introduction. Previous to that even such a small object as a uterine applicator introduced into the cervical canal caused her to suffer intense pain and left her in an extremely uncomfortable condition.

Another case was that of a patient who is suffering from dysmenorrhœa, who had been suffering intensely for years; all her organs are excessively sensitive, the rectum as well as the pelvic viscera. She had dysmenorrhœa, but was passing very little blood. I used the speculum in the same way, without any evidence of pain, and cleansed the cervix and cervical canal, then introduced a pledget of cotton soaked with a few drops of a four per cent. solution and left her perfectly comfortable. The insomania from which she had been suffering for years remained. This constant sufferer from dysmenorrhœa received relief such as she had not known for years.

In another patient who is in the same sensitive state, having a subacute or chronic inflammatory condition of all the pelvic viscera, in whose case it was impossible to enter the uterine canal without almost producing convulsions, the intense suffering was greatly relieved by the use of cocaine applied upon a pledget of cotton. I took a very delicate pledget of cotton which I wrapped around the applicator and so introduced it into the

uterine canal. This patient had become almost childish and was beginning to lose her mind. She was put in a comfortable position by the use of cocaine. The speculum was introduced without the least trouble. Previous to this time, upon the removal of the speculum she always went into hysterical spasms, but after treatment with cocaine the speculum was used without producing any of these effects. In fact she says she felt no pain whatever; she did not feel the use of the speculum, and she left the office after the application feeling perfectly comfortable.

Dr. Scott.—How long do the effects last?

Dr. Engelmann.—The direct effects I cannot say. I only know as yet that the patient is left comfortable for the time, and the excessive suffering seems permanently lessened.

Dr. McPheeters.—In the case of pruritus vulvæ how did you apply the remedy.?

Dr. Engelmann.—In the same way, taking a little pledget of cotton on the end of the applicator, and saturating it with a four per cent solution, and then painting the surface with it.

Dr. Boisliniere.—How long does it relieve the unpleasant symptoms?

Dr. Engelmann—I have only one such case, and it has been three days between the first and the second visits, and the pain was relieved during that time. Another case in which I have used the remedy is that of a little girl who has gonorrhœa, and you may imagine how intensely sensitive those little parts are. When I came near her she shuddered, and all her muscles contracted. I painted this in the same way with, I presume, not more than four drops of a four per cent solution, with a cotton mop and left that in about two minutes, when I was enabled to use the speculum, and though she claims she felt the application, she did not contract a muscle. In a case of intense suffering and excessive hyperesthesia from a lacerated, everted and eroded cervix, a case in which there was backache and hysterical excitement, and constant suffering, in a lady who is being prepared for an Emmet's operation, I used this remedy with the most happy result. This patient wished to attend a ball, and promised if she were permitted to do so to obey ever after. I painted the lacerated, eroded and everted cervix with a cocaine solution, introduced it into the cervical canal, and supported the uterus with some cotton tampons; from the time she left the table, a few moments after the application of the remedy, her backache, nervousness and suffering ceased, and she attended the ball with perfect comfort, although she had hardly been able to walk a few squares without great discomfort previously. She was completely relieved of the other unpleasant sensations of backache, dragging down, and pains passing down the legs. I have used it in the rectum in a case in which the patient would creep from her closet back to the bed after each operation on her hands and knees in the most intense agony. I understand she has had fissure of the rectum, although I could not now find such. Very ev-

ident is the metritis and endometritis, hyperesthesia and intense suffering from a point in the coccyx. The application of a little cotton on the applicator, soaked in a four per cent solution, was left in the rectum, and entirely relieved the pain. She passed her stools with comfort, and the pain of the coccyx is to a great degree lessened. It is a case for which operation has been suggested, and I had refused at the time, thinking it might be a reflex pain and not a disease of bone. Now the severe pain which has lasted for a year or two is leaving, lessening at least.

Those are some of the most striking of the cases in which I have used this remedy. Let me add that it has been used to relieve the pain of dysmenorrhea by injection of four drops over the region of the ovary. The physician who reports this claims that it relieved all suffering except the local pain and backache. This very pain was in my case relieved by the application to the cervix which I made; and if the injection of the drug in the region of the ovary will relieve the other pain, then we will have a complete remedy for this trouble, as all pain will be relieved. I am anxiously expecting several such cases on which I intend to try the effects of the drug. I have used this remedy in one case of vomiting of pregnancy where all internal remedies were in vain, but on making examination I found this was quite natural, as an eroded cervix showed cause sufficient. There was a large circular erosion, and after cleansing and drying it thoroughly, I applied the cocaine and the vomiting ceased.

Dr. Papin.—I procured five grains of this drug, and the first patient on whom I used it was an Irish girl who came to consult me on account of a supposed root of a tooth left in the gum by a dentist. I attempted to touch it with my finger, but she would not let me do so on account of the sensitiveness. I put some of the drug on cotton and fixed it over the part, and a few minutes afterward was able to explore and remove part of the alveolar process. My second patient was a lady who was delivered nineteen years ago by a midwife, and who has since been suffering from vaginitis with some engorgement of the os. It has been the torture of my life to attend this woman. She would stick to me, however, and come back every few months, and faithfully attended my office for a while, and then become so fearful of pain that she would not return for some time. The last time I saw her I tried the cocaine, and can testisy with Dr. Engelmann that it was a complete success. The woman was very nervous when I begun the examination, but I was enabled for the first time in years to probe the wound thoroughly, after making application of cocaine to both vagina and os.

My third case was a young woman, extremely feeble and of a nervous temperament, who has born two children. Since the birth of the last child she has removed to the state of New York, and has had considerable rectal vaginal and uterine trouble. She was unwilling to be treated there, but came home to her friends and to consult me. Only a few days ago I

saw her for the first time, and from the description she gave me was satisfied there was a fissure in ano. She would avoid any evacuation of the bowels for days, and when one finally did occur she would suffer very great torture. She had lost so much flesh as to become almost a skeleton. The thought of an examination kept her awake all night. Next morning I applied the cocaine to the rectum, gradually pressed it up with the finger, and found it was less and less sensitive. I then introduced one of my fingers into tbe rectum. She said, "you are going to do something," and jumped suddenly and cried out a little. I finally introduced two fingers into the rectum, and asked if it really hurt her, and she said "no," but she was afraid I would.

The fourth case was one which belongs to the domain of surgery, a case of carbuncle on the neck, about the size of a silver dollar. All the gentlemen well know how extremely sensitive these carbuncles are. I told the patient he must prepare himself to suffer a great deal from the operation, which must be a very painful one. Without saying anything more I moistened a little absorbent cotton in cocaine and placed it on the carbuncle. I then quickly made a crucial incision, cutting deeply through the whole inflamed surface. I asked the patient if it did not hurt, and he said, "if you call that hurting, it is nothing in comparison to what I have already suffered." Such has been my experience.

Dr. Gregory.—Is there any objection to introducing the remedy into the womb?

Dr. Engelmann.—None at all.

Dr. Boisliniere.—Was not relief due to the fact that cotton was left inside the canal?

Dr. Engelmann.—I did not pass the application as far up as the internal os.

Dr. Ford.—Did not the cotton obstruct the canal during menstruation, or was it expelled?

Dr. Engelmann.—I think it was expelled. I have also used the remedy in eczema with excellent results.

Dr. Ford.—I have recently read a paper by Squibb in which he states there is hardly any probability of this drug becoming much cheaper than at present, at least soon. The quantity obtainable from the leaves is exceedingly minute, and the leaves must be selected with great care, and be quite fresh.

Dr. Boisliniere.—How long does it relieve the pain of eczema?

Dr. Engelmann.—It has been relieved in the case in which I used it, for at least two days.

Dr. Prewitt.—How much can we inject under the skin?

Dr. Engelmann.—From two to four minims of a four per cent solution has been injected.

Dr. Prewitt.—I injected more than that in a case of neuralgia without any effect at all. The case was a man who had a neuralgia of the inferior dental nerve, in which Dr. Hodgen had drilled the jaw bone three times, I think. He came to me and I resected the nerve above the point where it entered the inferior dental canal, taking it out and cutting down to the mastoid muscle and jaw.

Dr. Gregory.—You mean the internal pterygoid.

Dr. Prewitt. I mean the internal pterygoid. I cut in between the muscles, dissected them back, and cut the nerve. I pulled it out with the effect of relieving the pain for some ten months. His face looked haggard and he was the picture of intense suffering before that. When he came back he told me that pain was sometimes running down this region opposite the mental foramen. He has this pain in spite of the fact that there is no inferior dental nerve; it is impossible it should be there, because I took it out, and concluded to give the man the benefit of nerve stretching as well as resection. So I pulled the nerve until it broke; so that although there can be no inferior dental nerve, yet he has pain right at this point. A few days ago he consulted me again, and I procured some four per cent solution and injected five or six minims without the least effect. In another case where a young lady with a good deal of pigmentary development wished a small growth removed, I painted the surface with the solution. I think it did benumb the part a little, so that I removed it without chloroform, but she said there was pain.

Dr. Gregory.—How long did you wait after applying it before you operated?

Dr. Prewitt.—About ten minutes. I painted it repeatedly. I do not think that cocoaine is readily absorbed by the skin or mucous membrane. With regard to the statement that there is intense pain attending the lancing of a carbuncle, I cannot agree with the doctor. I think there is little pain because there is sloughing underneath. When we cut the margin there is pain, but the surface does not seem to be sensitive.

Dr. Papin.—I am not surgeon enough to stick to the surface; I go through integument and all. I believe in cutting well.—*St. Louis Med. and Surg. Journal.*

MEDICAL SOCIETY OF LONDON.

Meeting of March 16th, 1885.

W. M. Ord, M.D., F.R.C.P., President, in the Chair.

Dr. C. H. Routh commenced his paper on

The Constitutional Treatment of Disease of the Uterus and its Appendages.

by quoting a passage from Dr. Clifford Allbutt's Gulstonian Lectures (*British Medical Journal*, 1884, vol. i, p. 497, "A neuralgic woman," *et*

seq.), a passage which he characterized as a severe criticism of gynæcologists. He was not surprised at the hostility expressed; the introduction of chloroform, of the stethoscope, of the speculum, and of ovariotomy, had all encountered a similar hostility.

He denied that general neurosis were more common than uterine disease, and asserted that many cases of true disease of the uterus were overlooked, owing to imperfect methods of examination; forty years ago, the ignorance with regard to disease of the female generative organs was dense; and the great advance was due to the careful and systematic examinations conducted by gynæcologists.

No woman, especially if a virgin, should be examined, except when there was reason to believe that disease was making serious progress, but then there should be no hesitation.

He referred to various conditions in which examination was necessary, mentioning, as examples, severe gastrodynia, associated, probably, with prolonged leucorrhœa, due to a large erosion and great uterine tenderness; if the erosion were treated by caustics and other means, the patient rapidly recovered; displacement of the uterus, the neurotic and other symptoms following, perhaps, some sudden strain; the neurotic symptoms were at once relieved when the displacement was reduced.

The early stage of epithelioma of the cervix was often overlooked, owing to the disinclination which some practitioners felt to make vaginal examinations.

Mucous polypi and fibroid growths were also often overlooked, for the same reasons, and the menorrhagia which they set up, was treated by general means without result.

He quoted several cases of insanity connected with disorder of the sexual organs, masturbation or delusions of a sexual kind.

He was not an advocate of clitoridectomy, except as a last resource, and after full consultation with at least one other practitioner; but, by this operation, young women had been saved from chronic insanity.

Diseases of the ovaries and of the Fallopian tubes were also liable to be overlooked, though they might frequently be cured by operation.

He was not in the habit of proceeding at once to an examination of the sexual organs; on the contrary, it was his invariable habit to examine all the other systems first, and only to examine the sexual organs when the symptoms distinctly pointed to their being diseased; in those cases, he had no hesitation in making such examinations, and would consider himself to have failed in his duty if he did not. He concluded by emphatically stating that there was nothing degrading about such examinations when properly performed.

The President said that all would assent to the general principle that every case should be thoroughly examined; but, in the particular kind of

examination dealt with in the paper, certain qualifications of the general principle existed.

Dr. Clifford Allbutt said that he felt that Dr. Routh's criticism had left him entirely untouched. He was quite at one with the general contention of Dr. Routh's paper, which was that, in all cases where symptoms pointed to derangement of the generative organs, it was not only permissible, but imperative, to make a physical examination.

In Dr. Allbutt's opinion, no physician was justified in depriving himself, whether by reason of ignorance or of prejudice, of any physical aids to a correct diagnosis.

He had never pretended that the uterus was not subject to local diseases; on the contrary, he was aware that it was very subject to local derangements, some functional and temporary, others grave and serious. The uterus was a highly vascular organ, with a copious nerve supply. He was in the habit of comparing it with the heart in this respect. If a man suffering from palpitation and pain in the region of the heart were told that all his symptoms depended upon a derangement of the heart, he was liable to take an exaggerated view of the importance of his symptoms and to attribute every ailment to the same cause. Thus the arrow of hypochondriasis was implanted. So with women, *mutatis mutandis*. A woman suffered from a variety of pains, aches, and disabilities; she was told that there was some derangement of the uterus, and became, in consequence, liable to attribute an exaggerated importance to the part the uterine derangement took in the production of the neurosis from which she suffered. Men were liable to the very same neurotic troubles, and there could be no doubt that women suffered from neuroses which did not originate from derangement of the uterus, though that organ might or might not share in the general disturbance. Further, as was the case with other organs, neuroses which arose in connection with the uterus might be perpetuated as general conditions, even after the uterine derangement had diminished or disappeared. Further, he might say that, in his opinion, though it might not at present meet with general acceptance, the uterus was not unfrequently secondarily affected.

In conditions of general neurasthenia, he believed that functional, and eventually structural perturbations of the uterus might be produced. He was far from wishing to be understood to say that there were no gynæcologists who practiced in a scientific spirit, and from the standpoint of the general physician; but he knew that there was a large number of practitioners who treated cases of this kind from first to last as uterine without any consideration, or any adequate consideration, of the general condition.

Dr. Routh had quoted certain cases, which had come under his care suffering from uterine derangement after having undergone a long course of treatment of a constitutional kind. But the converse was equally true,

for Dr. Allbutt said he saw a large number of cases which had come away from gynæcological treatment having received no benefit, or only temporary benefit. He felt very strongly that no individual could say certainly on which side the preponderance of truth lay; the appeal lay to the great jury of the medical public. He was quite willing to admit that, after making all deductions, there were a large number of cases of this class depending upon true uterine disease; all he contended was that the deductions should be made.

With regard to the cases quoted by Dr. Routh, in which masturbation preceded, in point of time, the onset of epilepsy or insanity, he was very strongly of the opinion that, in the vast majority of such cases, the masturbation was one evidence or consequence of an inherited instability of nervous equilibrium, that it was the first symptom of the nervous disturbance which ended in insanity or epilepsy, and not the cause.

Dr. Allbutt concluded by saying that he did not wish to be classed as an obscurantist; he held very strongly that it was imperative, in certain cases, to make an examination of the sexual organs, even in virgins; but, on the other hand, he thought that the extraordinary success which attended the Weir-Mitchell plan of treatment, introduced into this country by Dr. Playfair, was strong evidence in support of his general contention.

Dr. Playfair was glad to find that Dr. Allbutt recognized the fact that the overtreatment of supposed uterine affections was not due to the scientific gynæcologists; but there was no doubt that the misunderstanding had been extensively prevalent.

In common with Dr. Allbutt, he held that in the development of uterine disease a time came when the neuroses set up became the dominant feature; treatment must then be directed to the neurosis primarily, even, at first, to the exclusion of local treatment.

A great deal of Dr. Routh's paper was merely killing the slain. He thought no scientific physician disputed the necessity for making physical examinations.

It was only by keeping the mind clear, and impartially judging every case from a general consideration of all the symptoms and signs, that a just judgment could be arrived at, either in particular cases, or in the general subject.

Dr. Robert Barnes feared that the great body of physicians neglected the examination of the uterus and ovaries. The true motto was, "Interrogate all the functions." The great advance in the knowledge of uterine pathology was due to systematic examination of the organ. Any expression of opinion which appeared to contravene this was to be deprecated, and he had therefore listened to Dr. Allbutt's exposition of his position with satisfaction.

In the treatment of a complex of diseases, it was evidently proper to remove any complicating disorder, as, for instance, a disorder of the uterus. He doubted very much whether disease of the uterus was ever set up by general disease.

Dr. W. A. Duncan thought the profession was much indebted to Dr. Allbutt for his protest against frequent uterine examinations. The majority of cases of the lesser disorders of the uterus recovered under very simple treatment, applied after a single examination.

Excellent results were to be attained in the majority of cases of slight erosion, slight endometritis, and so forth, by general treatment.

Dr. Graily Hewitt was happy to hear from Dr. Allbutt that he did not desire to deprecate systematic physical examination of the uterus. In cases of neurosis, it was necessary to look to the general state of health antecedent to and underlying the neurosis; and he had for years recognized the importance of recognizing these general conditions of malnutrition, in which the uterus shared. If girls and young women were properly fed, the gynæcologists would have little employment.

Dr. Heywood Smith, Dr. Wynn Williams, and Dr. W. R. Rogers subsequently took part in the discussion; and the *President* said he fully recognized that Dr. Allbutt, in his lectures, did not attack the system of making thorough examination of organs, but the validity of some forms of treatment.—*British Medical Journal.*

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, Thursday, April 5, 1885.

The President, B. F. Baer, M.D., in the Chair.

The President exhibited the specimen, and reported the case of a rapidly growing

Ovarian Cyst.

A patient of Dr. A. G. Walls of Lockhaven, Pa., M.L., aged 26, single, puberty at 14; always well, and possessed of a remarkably fine physique, tall and robust, felt some pain and uneasiness in the ovarian region three months ago. She was examined by Dr. Walls, who found the right ovary enlarged to the size of a large orange. She soon after found that her abdomen was increasing in size.

On March 9 I saw her. She was beginning to show facial signs of ovarian disease in slight emaciation, pallor, and the peculiar distress of countenance. The menses were regular, the abdomen was distended to the size of the eighth month of pregnancy and was perfectly symmetrical, pyriform in shape, dull on percussion, with a resonant corona extending from one flank to the other, and there was marked fluctuation. Vagina virginal, cervix uteri pointing slightly forwards; body retroverted and mo-

bile. The lower border of the abdominal tumor could be touched per vaginam. The uterus was not affected by the movement of the tumor. Diagnosis, ovarian cystoma. Immediate removal advised. Operation: assisted by Drs. Walls, Hayes and Lichtenthaler, in the presence of Drs. Watson and Ball. Incision, two and a half inches; fat in abdominal wall at least an inch in thickness. Tapped the cyst, which contained a bucketful of a thick fluid the color of pus. Removed the collapsed tumor through the small incision; there were no adhesions; ligatured the short pedicle and dropped it. The left ovary was found to be as large as a walnut, and undergoing cystic degeneration; it was also removed. The incision was closed with six silk sutures. The patient recovered without an untoward symptom.

The rapidity of the development of this tumor was remarkable, and justified me in bringing it before you. The other ovary is a beautiful specimen of beginning polycystic disease. It is a curious fact that of my last six ovariotomies, in not one of them did the period of development extend over nine months from the time the disease was first discovered; one of them being only three months, as just reported, from the time it was first found by Dr. Walls until it became the size of an orange. They were all good sized tumors, two of them weighing nearly forty pounds each.

Bromide of Ethyl as an Anesthetic in Labor.

(The entire paper will be published in the *Am. Jour. Obst.*)

Dr. Montgomery, reviewing the various anesthetics, said chloroform is objectionable in that it causes inertia uteri and tedious labor and increases the danger of post partum hemorrhage. The relatively infrequent fatal cases under its use in surgical practice, and the still more rare serious results from its use in obstetrics, forbid its habitual use. The use of ether in natural labor is infrequent, because to relive pain the patient must be profoundly etherized. Partial etherization but destroys the ability to bear pain without obtunding sensation. Besides, Tait has demonstrated that ether passes rapidly into the circulation of the fetus, endangering its existence. The mixture of nitrous oxide and air, advocated by Tclikowitsch, requires a special apparatus and is unweildy. The ideal anesthetic is one that is safe for mother and child, certain in its effects, rapid in relieving pain without causing loss of consciousness, and whose effects pass off quickly. All these demands are met by the bromide of ethyl. He enumerated 112 cases in which it had been used, 29 of which were in his own practice: none of the mothers died, and but three of the children. In none of the latter could death be attributed to its use. It was administered during the second stage of labor by laying a napkin wet with the ethyl over the face of the patient at the advent of each pain, and withdrawing it as the pain subsides. Unless a drachm was used, the sensation of pain was obtunded without arresting consciousness. The process of labor was car-

ried forward vigorously and quietly, the patient ready to exert or withhold voluntary aid as the attendant might direct, and the expulsion of the head was attended by no greater pain than accompanies the evacuation of obstinately constipated bowels. His experience did not lead him to believe that its use would induce uterine inertia or increase the tendency to post partum hemorrhage.

Dr. D.M. Barr is much interested in this subject, and thinks from this report that the indications for the usefulness of bromide of ethyl are favorable. He would like to know to what degree the patient returned to consciousness between the pains. He will use bromide of ethyl as an experiment, but he will say here that his old combination still gives him the very best effects with perfect safety. He has continued to use it in almost every case of labor since his report on anesthetics in labor, (see *Med. and Surg. Reporter*, March 13, 1880.) He would feel some hesitation in using bromide of ethyl, as it is dangerous, even if not so much so as chloroform. How would it act if mixed with ether? The objectionable qualities of ether and chloroform balance and overcome each other, and the addition of alcohol to the mixture prevents their explosive action, so to say, that is, the sudden effect of a full and deep inspiration of the strong vapor of the anesthetics is prevented by the admixture of chloroform in proportion of chloroform one part by measure, ether three parts, and alcohol two parts. If a portion of this mixture be placed in a saucer and heated, it will all evaporate together; the ether does not evaporate from the alcohol. This mixture soothes the pain and makes the patient happy. The excited or drunken stage of ether is avoided, the danger of chloroform is avoided; unconciousness is unnecessary, and is not produced. If bromide of ethyl has any of the dangers of chloroform, they are unchecked by admixture with correcting agents. Dr. Barr, related the particulars of a case in which he had employed his mixture, to show how kindly it acted in presence of suspected functional heart disease. In this case its administration was continued for nine hours; the pain was relieved, there was no vomiting, no effect upon the pulse.

Dr. R. P. Harris remarked that chloroform was considered perfectly safe as an anesthetic in labor. Playfair in his last book advocates it on this ground, but there have been fatal cases. The danger of an anesthetic can only be ascertained after it has been used and reported by many observers, so as to get an average. Some men are careful and cautious, others are not. The use of mixed anesthetics is becoming more general in England.

Dr. Wm.M. Welsh, upon invitation by the President, remarked that he had no experience with bromide of ethyl, and but very little with other anesthetics. He had given ether in one case, and a troublesome condition of intoxication had been developed. He was applying the forceps, when the woman suddenly seized one blade and wrenching it out of the vagina tore the vulva. He prefers to get along without the use of anesthetics.

Dr. Henry Leaneau, upon invitation by the President, said he also had no experience with bromide of ethyl. He does not hesitate to use ether in bad cases of labor, but he does not employ it if he can avoid it. He is not yet convinced that the use of anesthetics in natural labor is advisable. There has not yet been formulated a satisfactory definition of natural labor. He is now engaged in studying that subject. He has observed in private practice most of the positions described by Engelmann in his article on primitive obstetric practice. The sympathetic system in labor reacts upon the cerebro-spinal system and produces the condition of nervous excitement, which is seen in the patient, and which often extends to the friends of the patient, and even to the doctor in charge of the case. After a close observation of over six hundred cases, he thinks labor can be as natural a physiological action as respiration or circulation of the blood, or any other function of the body, with this one difference, that whereas the ordinary performance of function is pleasureable, in labor pleasure is replaced by pain. He is not in favor of the use of anesthetics merely to obtund or remove this pain, as it is natural, and anesthetics may interfere with the natural process, and cause relaxation or retard involution, resulting in that root of endless misery, a subinvoluted uterus.

He has been making careful studies with a dynamometer, which measures the available pressure. I believe that it gives the sum of the pressure applied to the ovum expressed in the projection of the advancing part, against which it rests. He will continue these studies, which are not yet complete. The force of the accessory muscles, as the diaphragm and abdominal muscles, takes no real part in the expulsion of the fetus, but merely embraces the uterus, preventing any rebound or loss of force when the ovum impinges against the pelvic walls or perineum. Their action being to sustain or hold the uterus closely to its work. The entire force exerted is not nearly so great as is usually supposed. The force of labor does not exceed that of arterial pressure, which I think is about six pounds. The exit of the child is not violent but gradual. It is a popular belief that a majority of labors occur at night, but, of his six hundred carefully recorded cases an equal number were born between 6 a.m. and 6 p.m., and between 6 p.m. and 7 a.m. There are, however, two acmes, one at 11 p.m. and another between 7 and 8 a.m. These two periods correspond to the times of greatest blood pressure. He ranges himself on the side of those who believe in the non-necessity of the use of anæsthetics in natural labor.

Dr. W. H. Parrish would like to hear more particularly from Dr. Montgomery in his closing remarks respecting the safety of bromide of ethyl as an anæsthetic. A few years ago it was introduced into surgical practice in this city and was abandoned in consequence of its dangerous character. If it is dangerous in surgery why should it not be so also in obstetrics? Chloroform which was at one time considered perfectly

harmless in the latter class has been found to be no safer there than in ordinary cases.

He has established for himself three rules respecting the use of anæsthetics in obstetric cases:

1st. In any normal case no anæsthetic is required.

2d. If the patient is nervous, excited and uncontrollable, he gives chloroform at the incipiency of each pain, to quiet the excitability of the patient and take off the sharpness of the pain without producing unconsciousness; during the intervals between pains the chloroform is withheld.

3d. Whenever he considers that unconsciousness, full anæsthenia, is necessary he employs ether so as to avoid the depressing effects of chloroform. Bromide of ethyl might be used in place of chloroform, as indicated in his second rule, if shown to be equally safe; but he would not consider it proper to use it to produce complete relaxation as required for version or the application of the forceps. Prof. Wood, in his experiments, found bromide of ethyl more dangerous than chloroform. Dr. Parish does not now use it and he fears it would go hard with any physician before our courts if he had a fatal accident occur during its use.

Dr. Baer thought Dr. Leaman's estimate of the force required to extrude a full term fetus far below the mark. A child weighing seven pounds or over is pushed through a curved, horizontal, resisting passage, with irresistable power; and sometimes rapidity. A force of six pounds would not lacerate a perineum. In some cases there is but slight resistance, and the force required is small and the pain not severe. He has seen cows moaning from the severity of their pains during parturition. In one case recently a cat was delivered of its first kitten after severe and prolonged pain and the second kitten required three hours for its extrusion. The pains of labor are more easily alleviated than the pains of surgery by anæsthetics and with no increase if not a diminution of danger.

Dr. Montgomery, in closing, said that as to danger from the use of bromide of ethyl; he thought there was no danger if a pure article was used. The patient is not completely narcotized, consciousness is not lost; the administration of the drug is interrupted. The patient can cooperate although relieved of suffering. She can answer questions. Prof. Müller is the only one who has failed in obtaining good effects and this was probably due to impurity in the drug. Bromide of ethyl does not take the place of chloroform, nor does it produce muscular relaxation, nor relaxation of the uterus as required in version. It can be pushed to complete unconsciousness, but that is not necessary as pain will be relieved without while the contractions of the uterus and respiratory muscles are fully as effective as without it. Labor is undoubtedly a physiological process as much so as respiration or defecation, but it does

hurt. It is the type of the most severe and agonizing suffering and we as physicians are called on to relieve that suffering and prevent the waste of vital force to the extent that we can by preventing pain, long continued pain. Bromide of ethyl is apparently entirely safe when given as I have used it. Experimental physiologists do not all agree with Prof. Wood as to the comparative danger of this and other anæsthetics.

W. H. H. GITHENS, M.D., *Secretary.*

Editor's Table.

SHALL MIDWIVES BE LICENSED? —This question is just now being considered by the legislature of New York. The reasons for such a movement are familiar, especially to the profession, and ought to be made so in some way to the public. The mischeivous results of incompency in the lying-in room, the suffering and years of various forms of invalidism; all these are familiar to the profession, and it seems incredible that the care of the parturient woman should, in this enlightened age, be committed to persons who have neither clinical experience nor preparation from the schools.

All the more would such a movement seem appropriate, when on every hand there is a steady demand for more rigid requirements of the regular practitioner. If the time has come when the regular physician shall give more evidence of competency before the sanctity of the lying-in room can be committed to his keeping, it certainly is not too much to ask that the unscientific and untutored midwife shall submit herself to some scrutiny as to her moral character, and as to her familiarity with the simplest duties which relate to her grave responsibilities.

In regard to this New York movement we take the following from the *Buffalo Med. and Surg. Journal.*

The action of the Buffalo Medical and Surgical Association in appointing a committee to draft a bill for presentation to the legislature, providing for the licensing of midwives, after due examination by a board of legally qualified physicians, has been supplemented by that of the Medical Society of the county of Erie, which latter has endorsed the action of the former, adopted the draft of the bill as presented by the committee, and referred it to the legislature with the recommendation that it be passed. The provisions of the bill are, in our view, so entirely just to the midwife, so conservative of her best interests, and so far from containing onerous requirements, that we cannot believe it will receive any well considered or formidable opposition.

The following is a synopsis of the bill as adopted:

Sec. 1 provides that on and after July 1, 1885, the county judge of Erie county shall appoint an Examining Board of five physicians, and also provides for the filling any vacancy. Section 2 designates the officers of the

board as a president, secretary and treasurer, and requires the adoption of rules for the conduct of the examination. Section 3 requires the board to meet on the first Tuesdays of April and October of each year, for the examination of all candidates who present themselves, who are of lawful age and good moral character; provides also that ten dollars shall be the fee for the examination, which shall be applied towards defraying the expenses of the board.

Section 4 designates any successful candidate as a 'midwife,' and that she shall receive a certificate which shall entitle her to attend any case of normal labor, but provides that she shall not use instruments, attempt version, or administer any dangerous drug, except when the attendance of a physician cannot be obtained. Section 5 provides for the revocation of the certificate for cause. Section 6 prohibits the practicing of midwives after December 31, 1885, except under provisions of this bill, under a penalty of not less than fifty nor more than one hundred dollars.

Oöphorectomy. — In a recent number of the *Louisville Med. News*, Feb. 28, Dr. T. M. Kyle, of Manchester, Ind., reports a very interesting as well as instructive case of oöphorectomy performed for the relief of insanity associated with nymphomania. We present only the essential parts of the paper, omitting almost entirely the details of treatment, as the case was singularly free from subsequent complications or untoward features.

"Indiana Johnson, white, aged twenty-five years, single, was admitted to the insane ward of Dearborn County Asylum, Jan. 3, 1883, for nymphomania. Otherwise she was healthy. She had led the life of a prostitute for three or four years previous, having borne two children, the eldest being four years old, the youngest two. Previous to the birth of her first child she showed no symptoms of nymphomania. After the birth of her second child she began to manifest strong and uncontrollable mania, refusing all restraint. Her parents informed me that during her pregnancy her mental condition was apparently sound, the patient remaining at home and taking part in domestic affairs. After this event she was sent to the asylum for protection. Such was the condition of her mind from admission to the date of operation that she had to be confined to a dark cell, being thus shut off from all male attendance and visitors. The mere presence or conversation of either would throw her into a violent fit of mania. She would divest herself of all clothing, use obscene language, and implore that some one might be admitted to her cell to satisfy her morbid desires.

Oophorectomy was the only remedy that promised any relief. Consequently on the 25th of May, 1884, assisted by Dr. Craig, formerly house-surgeon, and Dr. W. H. Tyrrel, secretary of the County Board of Health, Battey's operation was performed. The time consumed in this procedure, from the commencement of the administration of the anesthetic to the completion of the dressing, was sixty-three minutes. An incision extend-

ing from the umbilicus to the pubes was made; all hemorrhage controlled by hot water; antiseptic precautions used, instruments, sponges, everything used during the operation being thoroughly disinfected. But little trouble was experienced in reaching the ovaries. Each in its turn was raised from its position and ligated with silk. The left ovary weighed fifty-five grains and the right ninety-five—both being healthy. The peritoneal cavity was thoroughly cleansed. A flat sponge covered the viscera, and was allowed to remain until all the sutures were put in place. As they were tightened the sponge was brought down; thus it was made to absorb all the blood which came from the needle-punctures. Several thicknesses of patent lint were applied, and a bandage completed the dressing. The woman was put to bed, and morphia given to control restlessness and secure sleep. The diet was to consist of milk and broth.

Menstruation came on on the night of the third day. Violent delirium on the sixth day, controlled by hypodermic injections of morphia. On the twenty-first day she was allowed to leave the ward. For two or three weeks her mental condition was much improved, and she manifested much anxiety to return home, (in the meantime her parents had separated) making several attempts to run away. In her present condition she manifests no sexual desire, wears her clothing, and is cleanly. Menstrua- has continued regularly.

We learn from this case, 1, that the removal of both ovaries may annul sexual desire, and may therefore be looked upon as a remedy for nymphomania.

2. That menstruation does not depend on ovulation.

3. That permanent injury had been done the centers of intellection, though one prominent symptom of the disease had been cured. The patient is likely to suffer from chronic mania.

NOTE.—In a personal note from Dr. Kyle, he says that since writing his report for the *News* the patient has entirely recovered, and has been discharged cured. S.

Abstracts and Selections.

I.—OBSTETRIC.

Curious Obstetrical Case.—T. J. Happel, M.D., Trenton, Tenn., contributes the following to the *Medical and Surgical Reporter*:

At the last meeting of the Gibson County Medical Society, Dr. Stephenson, of Dyer, Tenn., reported the following unique case in obstetrics:

Mrs. B—, several years ago (about five years, I believe), gave birth to a living child under the care of a midwife, a thoroughly truthful and reliable woman. After the birth of this child there was no lochial discharge of any kind—no after-pains—nothing that indicated that labor had taken

place, except the child. About the third or fourth day, after the birth of the child he, Dr. S., was called to see the mother, on account of her size and the absence of the lochiæ. He made an examination of the mother, and found the facts as above stated. Upon palpating and auscultating the woman's abdomen he detected the movements of the child in utero, and distinguished plainly the action of the fetal heart. He thereupon informed the woman and midwife that there was another child in utero, and that her size was due to that fact. He made no vaginal examination, inasmuch as the woman was apparently doing well.

On the seventh day after the birth of the first child, the mother brought forth a second healthy living child at full term. After the birth of the second child the lochial discharge came on, and everything progressed as in any normal labor. The children both lived, and were seen by both Dr. S. and other members of the Society. Dr. S. then read a letter to the Society from the husband of the lady, relating to her last confinement, which occurred in the latter part of 1884, or the first of this year. The letter stated that the last labor was a duplicate of the former one, except that the interval between the births of the twins in this latter case was eight days, whereas it was seven in the former. In the first case the children were both girls; in the second, both boys. Who has met with a similar case?

Vomiting in Pregnancy.—Septicemia and Death.—Wm. H. Veath, M.D., Carthage, Ill., reports the following to the *Peoria Medical Monthly:*

One of the most peculiar cases it has ever been my misfortune to record came under my observation recently in this city.

On the 25th of December last, Mr. B. requested me to see his wife. I found the lady in bed, but looking cheerful. And as I entered her room she jocularly remarked: "Doctor, don't I look sick?" At the same time exposing her arm to the elbow, showing a round, plump, fat arm. She was twenty-seven years of age; had been married four years; had never been pregnant, without this be pregnancy; says she had been anxious to become pregnant, as her old physician had told her that if she could bear one child she would have better health. She had been troubled from her girlhood with her menses, which had always been extremely scant, very painful and almost unindurably offensive. Her physique was well developed. Her ordinary weight about 150 pounds. Her flesh was firm and she had the appearance of being well nourished. Her former physicians had made some kind of an operation for the removal of adhesions between the uterus and rectum; some inflammation had followed the operation, and since that time she had been subject to uterine ulcerations. She kept remedies on hand from her former attendant for these ulcerations, and applied them in the form of a wash. Her menses have been regular so far as time was concerned up to the middle of

September last, since which, she had no appearance of it. About the first of October, two weeks from the time of the last appearance of her courses, she began to have symptoms of disturbed digestion. Such as flatulent colic, sick stomach, constipation, prolapsus uteri, backache, occasional difficulty in urinating, etc. Sickness of the stomach with excessive vomiting was her great trouble now, for which she wanted treatment. Every time she raised her head from the pillow she became sick, dizzy, blind and faint. She had retained nothing of consequence on the stomach for two days, not even a cup of tea, and she felt that she could stand it no longer. I found the genitals extremely tender to the touch; the vaginal walls loose and relaxed, having a soft, pulpy feel; the uterus was enlarged to the size it should be at three months of utero gestation, and extremely anteverted, the fundus bearing strongly against the rectum. The body of the organ appeared firm and unyielding. So much so that all the pressure I could exert by one finger used as a hook over the cervix and the other as a lever against the anterior wall did not affect its position in the least. I expressed the opinion that she was probably three months pregnant, and that the anteverted condition of the uterus was perhaps the sole cause of her extreme nausea and vomiting. I ordered her to use warm astringent and sedative washes to the vagina until my next visit, when I would attempt to correct the misplacement if the parts were in proper condition.

When I returned she questioned me closely as to the means by which I proposed to correct the misplacement, and when I told her that it would probably require the use of a blunt hook in the cervix to draw the womb into its natural position, she declined to have it done, fearing an abortion in case pregnancy existed. Bismuth and chalk were used to quiet the irritability of the stomach, but without the least beneficial effort. For the intense thirst which had existed for several days, small lumps of ice were swallowed at short intervals, which though quite grateful to the stomach proved inefficient.

Then followed a succession of remedies of the class calculated to subdue the symptoms until the laboratory was about exhausted without the least benefit whatever being derived from it.

I then requested counsel, looking toward direct treatment to the uterus, but the object of the counsel being anticipated and the patient having fully determined to have no interference in that direction, promptly and emphatically refused to have counsel called; urging some particular objection to every physician in the city. I warned her of the danger of delaying longer, and urged her to allow me to only cauterize the cervix, but all to no purpose.

Having heard her speak the name of her former physician, who lived in a remote part of the State. I finally asked to have him called by wire, which she consented to, after several days' hesitation. He arrived on the

second of February, and after a promise on our part to do nothing without her knowledge and consent, she permitted an examination per vaginam. After a full review of the case and a consultation, in which all the expedients were taken into account, it was determined to straighten the uterus by means of blunt hook and elevator, and cauterize the cervix. After considerable parley and hesitation on her part and promises on our part not to produce an abortion if it could be prevented, she consented to the procedure.

The patient was now extremely prostrated, having retained no nourishment by the stomach for over three weeks. All the nourishment she had taken had been by the rectum. A full dose of milk and brandy was given by enema, and in half an hour a Nelson's improved vaginal speculum was introduced into the vagina, and for the first time the condition of the parts exposed to view. The vaginal walls were found to be deeply engorged, and slight friction caused bleeding from the membranes, and that portion of the uterus exposed to view was in the same condition; the cervix being entirely out of sight and out of reach. The broad handle of the uterine sound was used as an elevator, but no impression could be made on the position of the organ. A blunt hook was passed beyond the blades of the speculum in a blind search for the cervix, which was at length found, and by a steady and strong effort, was after some time brought in sight, and by the aid of a tenaculum held until it could be cauterized. The force necessary to be exerted on the hook had caused a dilation of the cervix to the extent of at least half an inch. A sponge, saturated with carbolized glycerine and water was placed in the vagina and the speculum withdrawn. For a few hours the vomiting did not return but within twelve hours it was as persistent as before. A blister was applied to the epigastrium with no better results. On the morning of the third of February, twenty-four hours after the cauterization of the cervix, I found the temperature elevated, the thirst more urgent and the uterus more tender. The sponge, when withdrawn, emitted a most sickening odor, giving evidence of a putrid condition of the discharges.

The vagina was washed out with a ten per cent. solution of carbolic acid by means of a fountain syringe; this was repeated every twelve hours. Nourishment was continued by the rectum to the extent of her ability to retain. The uterus continued extremely tender until the morning of the 7th, when I was told by the watchers that she had been bleeding from the bowels. On examination, however, it was found to be from the uterus. Her condition was quite critical. Hiccough had troubled her several times during the last twelve hours. When I informed her that an abortion was unavoidable, she turned her head from me and remarked that "she had rather die."

The os was quite slow in dilating, and at 9 p.m. it would only admit the end of the finger. She complained, however, of her back. On my

arrival at 8 a.m. on the 8th, I found her in strong labor, with expulsive pain almost constant. In a few moments the uterus was emptied. The fetus being what I supposed about four and a half months. The placenta, membranes and clots being expelled with the fetus; all of which were in a partial state of decomposition. The uterus contracted well, and but little hemorrhage followed. No vomiting had occurred since the first indications of abortion set in.

Milk and lime water was now added to her nourishment, which she took by the stomach and retained; the first for over three weeks.

On the morning of the 9th, I found the discharges almost intolerably offensive, carbolized washes were used and the womb and vagina thoroughly cleansed. During the day febrile action came up, and the flow of urine ceased altogether. I at once resorted to the catheter, but only a few ounces could be obtained. On withdrawing the instrument I found it completely filled with a black, grumous matter, which had obstructed the flow. I then connected a fountain syringe with the catheter and washed out the bladder with a ten per cent. solution of carbolic acid. This being repeated every twelve hours, I hoped to be able to prevent septicemia.

During my efforts to empty the bladder I had the mortification to find that organ completely paralyzed.

On the 11th she became comatose, and deglutition became somewhat difficult, her sleep was heavy and exhausting.

On the 12th she was profoundly stupid; no efforts would arouse her more than to open her eyes languidly and then close them again without recognizing anything. During the night she passed into the most terrific convulsions, which returned at intervals of about an hour, until she expired at 8 a.m. on the 13th of February.

Functions of the Membranes in Labor. Read before the Chicago Gynecological Society, by Henry T. Byford, M. D.

"It is hardly an exaggeration to state that the greater portion of the sins of midwifery practice are committed in the management of natural labor," says Lusk, in his "Science and Art of Midwifery," page 202; and on page 238, again, "The *os externum* is usually torn, especially upon the sides, the thickened labia roll outwards."

Other reliable authorities teach that one-fifth of the number of mothers suffer laceration of the perineum at the birth of the first child. Hæmorrhoids are said, by Barnes, and are generally considered, to be common results of ordinary labor. With such facts before us, we may well wonder, with the late Professor Gross, "why the Almighty did not create simultaneously with woman, a competent gynecologist to meet these inevitable evils." It seems, indeed, like a reproach upon Him, the crowning work of whose intelligence was the creation of woman, that she should

be the most poorly prepared of all beings for the reproduction of her kind. Was it always thus, or was child-bearing originally a "physiological phenomenon, not beyond the power of a healthy woman to patiently endure?"

If civilization be at fault, then we must again admit, with Professor Gross that "the sooner we get rid of this civilization the better will it be for our poor wives and daughters as procreative beings." Or, if the above quoted "sins of midwifery practice" have anything to do with these evils, it is time we were abandoning some of the things we have learned in the past six thousand years, and that the management of natural labor, especially the care of the perineum, were so taught as to come within the mental grasp of the ordinarily intelligent medical graduate.

The departure from the methods now taught, upon which I wish to get an expression of your opinion, is the preservation of the membranes from rupture until they dilate, or aid in dilating, the vulva, as they are sometimes observed to do when they are unusually tough and the child is born with a "caul." I shall first say a few words about the possibility and probability of such a procedure and afterwards about the utility.

According to the present obstetric teaching, and practice, I believe, the patient in labor is encouraged to go about the room until near the end of the first stage, thus, whether purposely or not, stimulating the uterus to contraction and adding gravitation to the other forces that bear upon the membranes in the cervix. This practice, with subsequent pulling at the os with the finger, or pressure upon the abdomen whenever the pains lag a little, or both, often has for its effect the discharge of the amniotic fluid, or near the end of, the first stage. If, however, pursuing an opposite course, we put the patient to bed upon her side as soon as, or soon after, the os commences to dilate; and if the pains are more severe than can be easily borne (as they are apt to be in highly civilized communities), we give an opiate, or other anodyne, to keep her comfortable, the presenting bag will be relieved of the weight of the abdominal contents, and saved from the more intense and frequent action of expulsive powers that accompanies an erect, or semi-erect position.

After the os is widely dilated, and the membranes receive but little support from the cervix, they will be less liable to rupture if we put the patient upon her back during uterine action. The head will be better able to form a ball valve, and thus take part of the pressure from the presenting pouch, viz.: as much as is required to overcome the elasticity of the ring of the cervix against which the descending head impinges. Now, after the os is widely dilated, when the resistance to the descent of the head is small, and the consequent strain upon the protruding membranes great, a change occurs which invalidates the reasoning by which some of the German authors, would make their rupture, or the bringing of labor to a stand-still inevitable at or near the complete opening up of the uterine

neck. The membranes, being loosened from the lower segment of the contracting uterus, are pushed down through the dilated cervix along with the head, instead of being merely stretched, they come in contact with the undilated vagina and are supported by it; and, as the whole parturient canal is converted into one cavity, the head follows the bag of waters down to the vulva, just as it followed it down to the external os, aiding in the dilatation, and sharing the pressure from behind. The second stage of labor becomes a kind of repetition of the first, the dilatation of the vagina and vulva being an analogue of that of the cervix and external os.

The Germans divide the expulsive powers of the uterus into two factors, the "internal uterine pressure" and the "form-restitution power." The "internal uterine pressure" is the uniform pressure to which the whole ovum is subjected; the "form-restitution power" is the shortening of the uterus from above downwards and from side to side. When the os is fully dilated, the "internal uterine pressure" forces lower end of the bag of membranes down into the vagina because that is the direction of the least resistance, but the "form-restitution power," by shortening the uterus from above downwards, forces the head down against the cervix, aided by the shortening of the transverse diameter, which tends to keep the body of the child from being displaced sideways. Now, all of these forces are acting in a downward direction, and the os being dilated, and the membranes loosened, what is to prevent them from descending to the vulva?

The membranes, with such management, are subjected to no more strain during the second stage of labor than they are under the prevalent mode of treatment, during the first stage. In fact the pressure upon the membranes under the ordinary start-on-the-run management, is not usually sufficient to rupture them as early as is commonly supposed. In my experience they have either ruptured at or near the beginning of labor or else persisted after the os has been dilated. Students are taught to rupture at the end of first stage; and nearly all of the physicians I have consulted usually find it necessary to do the same. Indeed, recent graduates are apt to betray a thrill of pride at the recital of the number of times they have successfully performed this hair-pin obstetric operation.

Playfair states, page 251, that a child would more frequently be born with a caul "* * were it not the custom of the accoucheur to rupture the membranes artificially as soon as the os is completely opened up * *" Leishman, in the second American edition of his "System of Midwifery," 1875, page 261, says, in describing labor: "As the termination of the first stage approaches, the protrusion of the bag of the membranes becomes more and more marked; and as at the same time the pains usually become more violent, it often excites our astonishment that rupture is so

long delayed." The only really astonishing thing is that one of such profound learning should be so often astonished at the same occurrence.

Scanzoni states, page 338, vol. I: "For it often happens that the child is expelled immediately or shortly after the rupture of the membranees," an occurrence that must either be the result of a dilatation of the vagina by the membranes, or else an already dilated condition. In those cases where the soft parts are flabby and can offer no resistance to the passage of the head, the preservation of the membranes is, of course, unimportant; and as the vagina affords no support, they are liable to rupture at any moment after the os is opened up. But in primipara and multipara, whose soft parts had returned to a natural condition after previous confinements, every attention, even the slightest, that makes labor safer and easier, is of great importance.

Naegele not having been obliged, in his day, to maintain his reputation for learning by an analysis and theoretical discussion of the profusely titled powers and pressures of the gravid uterus, made himself quite comprehensible by simply advising against rupture of the membranes until their appearance externally at the vulva.

The following is a fair sample of a large proportion of obstetric cases in my practice since I have adopted this plan:

Mrs. M——, a healthy, robust, Canadian primipara, twenty-five years old, sent for me at 5 a. m. I found her suffering intensely with very frequent and very painful uterine contractions, which had commenced about six hours before. The os uteri was dilated to about the size of a silver 20 cent piece, and in another hour to, perhaps, the size of a silver quarter of a dollar, and the pains continued as before. I prescribed fifteen minim doses of McMunn's Elixir of Opium, to be repeated every hour until easier, and left her for two hours. I returned to her soon after she had taken the third and last dose and found her dozing between pains and not complaining at all. I ruptured the membranes after they had protruded through the vulva and delivered her at 10 a. m. No unusual symptoms occurred then or afterwards, except that she (I use her own expression) "had the baby almost without any pain."

When the membranes are ruptured at the end of the first stage, there results, after a temporary rest, a rapid and very great change in the character of the labor, but when they are preserved from rupture it is impossible to tell, without the finger in the vagina when the first stage ends and the second begins. The torment that belongs to the stretching of the cervix subsides, and the labor gradually assumes a straining character, but only at the last moment, after the vulva is dilated to half or two-thirds of the size necessary for the exit of the head, is that severe suffering felt, of which primipara are otherwise wont to complain as soon as the head commences to bulge the perineum, or even after. The vagina is

filled with a tumor so smooth and soft that its presence cannot be felt by the patient at any one point, so elastic that a light finger touch indents it, and yet the whole power of almost every uterine muscular fiber, bears efficiently upon it.

'Tis strange that obstetric science can teach the deliberate breaking up of this simple process of nature and the substituting of an unnatural and artificial one, by which nearly all of the fibres of the lower half of the uterus operate only to contuse its own structure against the bare parts of the fetus without materially aiding in its descent, while the fibres of the fundus jam the hard, rough, inelastic, and comparatively unyielding head, down through the vagina against the perineal center, bulging and stretching the perineum, according to Lusk, "from four to five inches in its antero-posterior direction," and all of this without any provision for a gradual dilation of the vulva, or of making its axis, before delivery of the head, correspond with the axis of the pelvis.

Let us glance, for a moment, at the mechanism of dilatation of the perineum and vulva by means of the membranes: When the pouch reaches the vulva, it becomes conoidal, and begins to protrude during pains, changing its shape according to the requirements, in much the same manner as in dilating the cervix and os; and as it protrudes more and more, the fourchette descends to within about half an inch, or less, of the anal orifice. The perineum thus, instead of being bulged and stretched only in the direction of its transverse diameters; the transverse muscular fibres, instead of being farther separated with each pain, as when the head is the dilator, are brought nearer together, and hence, instead of being ruptured separately and easily, can be ruptured only as a solid mass, and with proportionate difficulty.

The posterior wall of the vagina, instead of being ballooned, is but slightly stretched along its antero-posterior diameter, and hence is not liable to that attenuation or transverse rupture which makes a sort of pouch or pocket for the child's shoulder to catch in and tear through the perineum.

There are other reasons for keeping the membranes intact; malposition of the head in the pelvis can more often be determined before rupture, and be corrected later and with greater facility. The body of the child cannot easily be grasped by irregular or tonic contraction of the uterus, as it occasionally is after rupture, when the parts of the child impinge upon the interior of the uterus—a condition of affairs which, when present in only a slight form, sometimes renders impossible the rotation of the occiput forward without disastrous twisting of the child's neck. The cord is much less liable to prolapse, and, if prolapsed, can be more easily made to slip back into the uterus.

After the membranes have once protruded through the vulva, they are, of course, liable to be ruptured with any strong pain, and if they do rup-

ture before complete dilation, there will be a liability to some contraction of the vulva before the head can descend to take the place of the membranes. In such instances there is, of course, some delay in the delivery after their rupture. After having ruptured them too soon in a number of instances, I now wait until the head threatens to come through with the membranes intact, and, in order to keep them so until then, I advise my strong patients not to bear down much, or else give a little chloroform with each pain. We can usually, by thus diminishing the pressure, delay rupture long enough for the head to be delivered with or between the succeeding pain or two. The uterus not having been long in direct contact with the fetus, the least possible injury will occur to each; the vagina will have suffered neither from dragging down nor friction, nor will the hemorrhoidal circulation be long interfered with. But above all, the perineum will have been taken care of, and Goodell's riddle of the sphinx be solved.

Whenever the membranes rupture before their office of dilating the vagina or vulva is completed, a strong or covered rubber-bag may be introduced and then inflated with water or air, until it fills the lower unoccupied part of the vagina, so as to be made to dilate the vulva, during pains, somewhat after the manner of the membranes themselves. When a rubber-bag is not at hand, the vulva can be partly dilated by two or three fingers placed in the vagina and pressed backwards gently, but firmly, with each pain, and the capping of the head by a membranous perineum, wherein lies the chief danger to its integrity, be prevented.—*Chicago Med. Jour. and Exam.*

II.—GYNECIC.

Applications of Corrosive Sublimate and Glycerine in Epithelioma of the Cervix Uteri.—There are few things in the way of palliative treatment that have given me greater satisfaction than the use, in a case of epithelioma of the cervix uteri, of a lotion, or injection, containing one-fourth of a grain of corrosive sublimate, and half an ounce of glycerine, to a pint of water. Before using it, a patient of mine had, for seven or eight months, been subject to paroxysms of agonizing pain, and to frequent hemorrhages, which were occasionally profuse. Immediately upon its employment, and for the last three months of her life, the hemorrhage became merely nominal; and, instead of agonizing pain, there was simply the distress consequent upon irritation (by the tumor) of the bowel and bladder, the latter of which became perforated a week before death. I attribute the beneficial change to the very marked reduction in the amount of infiltration. The lotion was used continuously, with very few exceptions, twice a day during the three months, and I shall certainly adopt the same treatment in the next case I have, even before recovery is despaired of. In the case referred to, it was not tried until the curative effects of chromic acid had been tried in vain.—D. Biddle, in *British Medical Journal.*

Isolation Treatment of Hysteria—Apropos of a little epidemic of hysteria, Charcot points out the great importance of isolation in the treatment of this disease. The epidemic affected a family consisting of three children, two boys and a girl. The girl, aged thirteen, had taken part in a spiritual seance as a medium in August, 1884, since which time she has suffered from severe and prolonged hysterical fits, along with amblyopia and other derangements. In November, both the boys, aged eleven and twelve, were affected with hysteria, becoming subject to fits and hallucinations. They were all admitted to the Salpetriere in December.

The fundamental part of the treatment of these patients Charcot considered to be their removal from the place where the illness commenced, and their separation from their parents and from one another. In this isolation he considers the value of the Wier Mitchell plan to consist. As of secondary importance he recommends iron and bitter tonics, statical electricity, and systematic hydropathy. He says no benefit follows the use of the bromides, even in hystero-epilepsy.

The girl was put in one of the female wards, and the boys in one of the male wards of the Salpetriere. The isolation was thus incomplete. They had, unfortunately, ample opportunities of witnessing hysterical attacks in other patients. Still, after six weeks' treatment the improvement was marked.

The youngest has ceased to have fits for fifteen days, and his other hysterical symptoms have almost left him. The elder boy, instead of having severe fits to the number of fifteen in seven days, has only had two slight vertiginous attacks in fifteen days. The girl, instead of having four or five fits or series of fits, lasting from half an hour to an hour and a half, has now only two or three in the week, lasting not more than a quarter of an hour, and less violent in character. In other respects she is much improved. Charcot mentions the success with which isolation can be carried out at the hydropathic establishments of Paris.

He further illustrates the striking results of this treatment by reporting a very remarkable case. A young girl of thirteen suffered from hysterical or nervous anorexy. She absolutely refused to eat, although she had neither trouble in deglutition nor gastric disorder. After a delay of six weeks, during which she went from bad to worse, Charcot succeeded in persuading the parents to isolate her, and leave her in his hands entirely. She was accordingly separated from them and placed in one of these establishments under the charge of a nurse experienced in such cases. Her condition was most pitiable. She was in a state of profound marasmus, extremely emaciated, bedridden, her extremities cyanotic and cold. Her recovery, however, was extremely rapid, and on the first night she took a little nourishment. In two months she was almost completely restored to health. She then confessed to Charcot that as long as her parents were with her she knew that he had not had his way, she believed that her ill-

ness was not serious, and having a horror of eating, did not eat. As soon however, as she was separated from them she took fright, and in spite of her repugnance, she tried to eat, and little by little her appetite has returned.

It is in cases of children that Charcot hopes for the best results from this treatment. In adults the chances of success, though considerable, are problematical.—*Manchester Med. Chronicle.*

Pelvic Anodynes.—The following is an extract of an address delivered before the British Gynæcological Society by Alfred Meadows, M.D., F.R.C.P., and published in the *British Medical Journal:*

There are a few drugs, certainly, which we may regard almost in the light of specifics in certain diseased conditions of the female generative organs; at all events, their physiological, and therefore therapeutical, action is perfectly well known and understood. I have already alluded to the physiological action of ergot; and my experience leads me to regard quinine and nux vomica as possessing similar powers. If, as I believe, we may regard the physiological action of any drug as determining its therapeutical value and property, what we want are exact physiological experiments tested by clinical observations. There can, I suppose, be no doubt that ergot acts directly upon the involuntary unstriped muscular fibre wherever it is met with; that its action, therefore, is by no means limited to the uterus, and that it has a very distinct effect upon the muscular coats of arteries and capillaries; hence, in poisonous doses, it causes such contraction of these vessels that the blood is driven into the veins, which accordingly become distended, and the patient assumes quite a livid hue. This phenomenon I have observed again and again, and the explanation must, I think, be that which I have just given. Here, then, we have a fact which might be turned to therapeutical account.

As an example of a pelvic anodyne, with special reference to the ovaries, I know of none that can compare with conium, or, better still, with the alkaloid conia, used in the form of vaginal pessary. In all cases, whether neuralgic or inflammatory, in which the ovaries are the seat of pain, conia is, to my mind, quite a specific. No drug that I know of acts with equal certainty and success. Lastly, I suppose we are all agreed that bromide of potassium exercises most powerful influence upon the ovaries. No drug, in my experience, can equal it in controlling ovarian mucorrhagia; it not only limits the flow in these particular cases, but it seems, also, to exercise a distinct and controlling influence upon ovulation itself; hence, if Mr. Lawson Tait will allow me to say so, its value in checking ovarian mucorrhagia, so far as regards its too frequent periodicity, for it certainly increases the length of the menstrual interval; in other words, it controls too frequent menstruation, or, as I should say,

too frequent ovulation. Now, we want more of such remedies as those I have mentioned, remedies which we can prescribe with almost absolute knowledge of their therapeutical value and effect, and we may look to the experience of the Fellows of this Society to supply many more examples of this kind. It will be by papers on such subjects, giving us exact experiments and observations, more probably than by the record of our surgical experiences, that this Society will fulfil what I hope may be regarded as one, if not the chief, of its functions, namely, to educate the mass of our professional brethren in the therapeutical branch of their calling in these particular cases. Nothing, I think, could more fitly demonstrate its utility than the record of such experience, and such work as this would, I am sure, earn and receive the gratitude both of the profession and the public.

Puerperal Peptonuria.—Peptonuria is a constant phenomeon in the normal condition of things after childbirth. It begins mostly on the second half of the first day, continues without interruption to the fourth day, frequently to the seventh, becomes gradually slighter, and vanishes entirely after the twelfth day.

Peptonuria occurs both in primiparæ and multiparæ, in suckling and in non-suckling women, after labors at full time and after premature confinements. It is found also in solitary pathological cases. From the results of Fischel's experiments it follows that the urine contains peptones during the period of involution, and in fact, at a time before fatty degeneration of the uterus has commenced. Whether, however, both the simultaneous appearances, the commencing involution of the uterus and the peptonuria, stand in causal relation the one to the other, is not clearly established by the facts adduced. All experience of pathological peptonuria until now points to the fact that it occurs when leucocytes containing peptone are decomposed, which being thus set free reaches the blood. The nearest analogy to this in puerperal peptonuria is the changes in the inner surface of the uterus, and the advent of the lochia. The lochial secretion, chiefly composed of blood on the first and second days, assumes a purulent slimy condition through abundant intermixture of leucocytes, and on this account the existence of peptones in it may be inferred.

From experiments on ten women, conducted over a period of eleven days, he concludes that the lochia frequently contain peptone. But peptone in the urine and peptone in the lochia are not even transiently connected. The urine contains it when the lochial discharge is free from it, and in fact can contain none of it, judging from its bloody condition in the first few days after labor. Conversely peptone was found in the lochia when the urine was free from it.

Fischel thinks he is warranted in asserting that it is at least very probable that the peptone in the urine does not proceed from the lochia. This

assumption is strengthened by the circumstance that the conditions for reabsorption of peptone from the lochia are certainly more unfavorable than in the case of a circumscribed abscess. In such a case peptone is reabsorbed if the pus cells are disintegrated in the stagnated fluid, whereas the lochia have free outlet.

The next point to consider is whether in the lying-in state there does not occur an accumulation and partial degeneration of leucocytes in the inner and muscular layers of the uterus, which may be assigned as the cause of the peptonuria. It is not likely, for however rich these layers may be in migratory cells, the number of these is insignificant when compared with those, say in an inflamed lung. In the latter case, too, the fate of the migratory cells is true disintegration, wheras, as in the normal puerperal uterus they fulfil regenerative functions and contribute to the reconstruction of the organ. Whence, then, is the origin of the peptone? Direct experiments were made to ascertain whether the muscular substance of the uterus in the the course of its involution gave rise to peptone. Fischel had seven opportunities for testing both muscular and mucous layers for peptone. The method is given with precautions for eliminating error. He concludes that the puerperal uterus contains peptone in its muscular substance.

Analyses were also made of quite fresh preparations of the uterus in women and in animals, which established that its presence is connected with regressive changes in muscular tissue. He infers that peptone is often present in the fresh tissue of the uterus, and that its origin during life is securely established.

How it is formed in the uterus is not so clear. One thing is plain from all the cases, that when the uterus is at perfect rest there is no peptone to be found in it. Thus it is not to be found in the unimpregnated uterus, nor long after the uterus has evacuated its contents. The place where the peptone is chiefly found is the muscular tissues. The mucous membrane only contains it in exceptional cases, and perhaps even in others there was some portion of the muscular tissue adherent, which gave rise to the peptone reaction.

But if peptonuria is really and exclusively associated with involution and reabsorption of the muscular elements of the womb, it might be expected to occur as a product of incipient degeneration of any albuminous tissues arising from other causes. For this reason the organs of animals poisoned with phosphorus were examined for peptone, as an analogy, possibly far-fetched, exists between the degeneration thus resulting and the involution of the puerperal uterus. The results obtained were somewhat various, and the chief definite conclusion that the author thinks himself warranted in making is, that in all cases where the organs experimented on were found to contain peptone, either none or very slight fatty degeneration of the tissue was established, while in cases of marked fatty de-

generation no peptone was to be found. In this there is a certain analogy with the cause of puerperal peptonuria, for in the latter the peptonuria comes on before, and disappears with the full establishment of fatty degeneration.

Analyses were also made of the urine of pregnant women, but no definite results were obtained.

The author concludes by remarking that he thinks he has brought forwards observations enough to justify him in writing on the subject, but no one person is in a position to solve the numerous chemical and clinical problems involved in the consideration of peptonuria. —*Manchester Med. Chronicle.*

Dangerous Hemorrhage Caused by Rupture of the Hymen During Coition. —Dr. Zeiss reports an interesting case in the *Centralblatt f. Gyneakologie*, Feb., 1885. In the morning, after her first coition, Mrs. L. noticed some blood-stains in her bed; she recognized at once that the hemorrhage originated from her genitalia. Cloths wrung out of cold water and vinegar were applied but without avail. In the afternoon the physician was called. He found the patient suffering with all the symptoms of extreme loss of blood, she was pale, and pulseless, swimming in a pool of blood, in deep syncope etc. On digital examination there was found a perforated hymen, an empty vagina and uterus, with closed orifice. An ocular inspection showed the source of the hemorrhage distinctly. There were two ruptures; from the deep left one the blood was flowing freely. The mouth of the vessel from which the blood came was about one to one and one half mm. in diameter. Digital compression against the bone completely checked the hemorrhage, but on the removal of the finger it would immediately recur. A ligature applied to the vessel succeeded perfectly. Under the administration of ether, wine, and similar remedies she gradually recovered. Three days later the ligature was removed without any recurring hemorrhage. One week later another inspection was made and no abnormally developed blood-vessels could be found on the genitalia.—*Weekly Med. Review.*

III.—DISEASES OF CHILDREN.

The Occurrence, the Prophylaxis, and the Treatment of Thrush and Intertrigo in Infants during the first two weeks of life. (*Archiv. fur Gynækologie*, Bd. XXIV., 3.)

Intertrigo and thrush have almost completely disappeared for the last twelve yeas in the Leipzig Lying-in Institution, through special precautions, consisting mainly in the observance of the most scrupulous cleanliness. The percentage has been reduced to 0·8 per cent. for thrush and 0·9 per cent. for intertrigo.

Diagrammatic tables are given indicating the cause of both diseases. From these it would appear that summer had not, as has hitherto been

considered, a predisposing influence upon the development of thrush. The most marked increase in the number of cases coincided always with the periodical changes in the staff of nurses, and is easily explained by laxity on the part of the retiring nurses and ignorance on the part of those who came to fill their places.

It is well known that atrophy and weakness of children predispose to thrush. Accordingly a double measure of attention is required in the care of premature and weakly children.

The opinion of Valleix, that intertrigo of the anus is a symptom inseparable from the development of thrush, is quite negatived by Wolff's observations. Only four times did thrush and intertrigo occur together, and only twice was there a combination of thrush, intestinal catarrh, and intertrigo.

The first set of cases is explained by the operation of the same factor, viz., want of due cleanliness; and it is easy to see in the second set of cases how the frequent fluid motions favor the occurrence of intertrigo.

The mode of feeding and the kind of food are also important factors.

Children at the breast are less prone to thrush than those brought up on cow's milk, and these again less so than those brought up on the various sorts of artificial food. The causes of this are two-fold—the quantity of sugar in these foods, and the deficient vitality of the children brought up on them.

As regards fatality, intertrigo is a painful but not deadly complaint; thrush is more dangerous by limiting nutrition, and that generally in children of low vital power.

Quite recently Epstein of Prague has asserted that in consequence of too frequent cleansing of the mouth of infants, the delicate epithelium of the mouth is injured, and a nidus thus made for the development of the fungus of thrush. Epstein accordingly disapproves of washing out the mouth at all. Sufficient clinical experience of this negative mode of treatment has not yet been obtained.

The method pursued in Leipzig is this: Several times a day the infant's mouth is carefully wiped out with a soft linen rag dipped in pure cold water. Should the thrush actually break out the same treatment is persevered with, only more frequently. If the case becomes severe the mouth is painted with a solution of five parts of borax to twenty-five parts of honey. Honey has been objected to theoretically from its easy decomposition, but clinical results do not bear out the objection; besides, the children like it, and it gets well distributed over the mouth.

Intertrigo is guarded against by washing the soiled parts with pure cold water after every motion. If the intertrigo is once established, the parts are still carefully washed with pure cold water and a piece of plain dry

wadding inserted between the opposing surfaces. No medicated ointments or powders are used in any case.

These are the simple means by which the occurrence of these diseases in the Lying-in Institution has been reduced to a minimum.

The nurses receive a thorough training, and on leaving the institute disseminate the information among the public.—*The Medical Chronicle.*

"Les Bromures."—Conférences thérapeutiques et cliniques sur les Maladies des Enfants, Vol. II.

Among the new remedies which this century has produced there is not one which has been more widely used than bromide of potassium. Discovered by Balard in 1826, it was not utilized to any extent in medicine till towards 1856, when it was tried as an antisyphilitic by Ricord and Pache. [Dr. Garrod made some extensive trials of the drug in 1854 in specific skin affections.—Tr.] Soon after its efficacy in epilepsy and other nervous diseases was established by Locock, Brown-Sequard, Gubler, and others. These observations led to a more extended use of the drug, as is evidenced by the fact that in the Central Pharmacy of the Paris Hospitals, in 1855, three kilogrammes only were called for, while in 1870 this amount had risen to 389 kilogrammes, and in 1875 to 730 kilogrammes.

The author, in considering the uses of the bromides in diseases of children, says he has but little experience in the uses of the ammonium and sodium salts, the latter especially, as it is a deliquescent and unstable chemical compound. He, however, speaks well of the polybromic solution of Yvon, which contains twenty grammes of potas. bromide, ten grammes of sodium bromide, and five grammes of ammon. bromide, to 300 grammes of syrup, of which a table-spoonful contains one gramme of the mixed salts.

The physiological effects of bromide of potassium are in the first instance exercised on the mucous membrane of the alimentary tract; it diminishes the sensibility of the pharynx, excites the mucous membrane of the stomach, increasing the appetite; in larger doses, especially in infants, it is apt to give rise to gastric irritation and diarrhœa. In older children the habitual use of the bromides, as in epilepsy, is apt to cause constipation. After absorption it depresses the action of the heart and slows the pulse, and is useful in some forms of heart disease, but it is apt to increase the dropsy if present. At times it appears to give rise to bleeding at the nose. It appears to cause a contraction of the arterioles of the nervous centres and skin, and blunts the sensibility of the mucous membranes of the urethra and bladder. The urine is increased.

The continued use of the bromides is apt to cause various cutaneous eruptions, as acne, erythemas, and boils. Some children are so sensitive

to the action of bromides in this way that it is almost impossible to give them the smallest doses.

The uses of the bromides in infancy and childhood are various.

In the convulsions of infancy, after attempting to combat the exciting cause, as evacuating the bowels, three to six grains are given daily in two doses to infants under two years of age. The best time is with meals so as to lessen the chance of irritating the stomach, and the medicine should be omitted after four or five days.

In epilepsy in children of four or five years fifteen grains daily in three doses may be given at first, augmenting the amount if no effect is produced, and continuing the medicine for fifteen to thirty days after the cessation of the attacks. The epileptics who resist bromides are sometimes amenable to atropine, or these drugs may be given alternately.

Children of eight to ten years, who are growing rapidly, and whose brains are easily fatigued by study, frequently suffer from headaches, which come on daily, and probably suggest to the friends the onset of tubercular meningitis. This condition may be combated with bromides in association with other means to restore the general health.

Bromides are also useful in some forms of functional heart disease, to which boys of fourteen or fifteen years of age who are given to violent exercise are subject. They perhaps suffer from palpitations, a feeling of constriction over the cardiac region, and dyspnœa. These symptoms are sometimes accompanied by a transitory hypertrophy, without any signs of valvular disease.

In some cutaneous eruptions dependent upon irritation of the nervous system, as pemphigus and prurigo, bromides may be usefully employed. —*Manchester Medical Chronicle.*

Bibliography.

Human Osteology, comprising a description of the bones with delineations of the attachments of the muscles, the general and microscopic structure of bone and development. By LUTHER HOLDEN, assisted by JAMES SHUTER, F.R.C.S., M.A., M.B. Cantab. With numerous illustrations. Sixth edition. New York: Wm. Wood & Co., 56 and 58 Lafayette Place. 1885.

This is the January volume of the current series of "Wood's Library of Standard Medical Authors," which prompts us to say: Wood's Library has now been issued regularly for six years, one volume each month; twelve volumes for fifteen dollars—surely when the character and execution of the volumes is considered, a marvel of cheapness. To be sure, the series is sold only on annual subscription, and for the general practitioner there is the objection of receiving books for which he has no use, still the selected volumes are all of a high order and in each series there are always enough to make the annual set cheap and desirable.

Holden's Human Osteology is very complete, almost every structure is well illustrated, and distinctly named on the plate, many of the illustrations being on heavy tinted paper. The mechanical execution of this opening volume indicates an increasing attractiveness in style.

Kirke's Hand-Book of Physiology, Volume I., Volume II. New York: Wm. Wood & Co., 56 and 58 Lafayette Place. 1885.

This is another excellent selection for the February and March volumes of Wood's Library, being a well known text-book; the present (eleventh) edition is well brought up to the latter part of 1884, under the careful editorial revision of W. MORRANT BAKER, F.R.C.S., and VINCENT DORMAN HARRIS, M.D. Lond., both connected with St. Bartholomew's Hospital. As an evidence of the freshness of views in this edition we notice that in the explanation of the process of menstruation prominence is given to the views of Löwenthal, and with apparent approval, as affording a more complete solution of all the phenomena, than the old classical views.

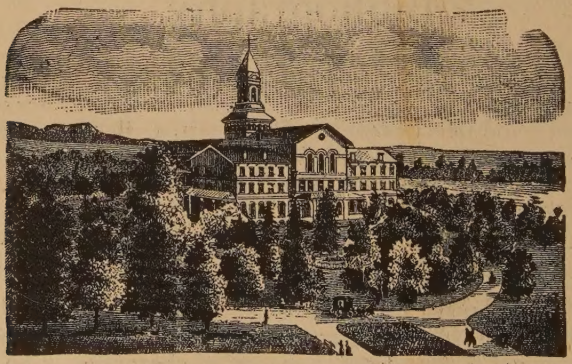
THE HYDRANGEA ARBORESCENS.—The value of this native plant in renal affections was first made known to the medical public by the former editor of this journal, Dr. S. W. Butler. Recently Lambert & Co., of St. Louis, have combined the active elements of the plant with lithia in a preparation called "Lithiated Hydrangea," which unites the virtues of both these remedies. In the *Chicago Weekly Review* two cases of rheumatic gout with renal complications are reported by Dr. F. S. Senier, of Waukesha, Wis., where this preparation in doses of a drachm, thrice daily, largely diluted, acted with prompt and satisfactory effect. The combination seems to us a happy one.—*Phila. Medical and Surgical Reporter.*

OXFORD RETREAT.

OXFORD, OHIO.

D. A. MORSE, M.D., Superintendent.

THE RETREAT is a private Institution for the treatment of all forms of Nervous and Mental Diseases, including Epilepsy, select cases of Inebriety, the Opium Habit, and Nervous Disorders of Children.



THE RETREAT, now in successful operation, is extensive (over 100 rooms), well arranged, well fitted and furnished, with beautiful grounds (35 acres), and every facility desired; vapor, medicated and electric baths. Morphine cases treated with little suffering and inconvenience. Select cases of inebriety received. Separate apartments for different forms of disease. Incurable cases cared for by the year at reduced rates. Special attendants furnished if desired. Regular night as well as day attendants for epileptics and others requiring it. The first floor is reserved for nervous disorders.

THE RETREAT IS ENDORSED BY THE PROFESSION.